

THE NOR-WEST FARMER.

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WINNIPEG, MANITOBA, APRIL, 1898.

\$1 a Year,
in Advance



The Industrial Prize List.

At the recent meeting of the Prize List Committee of the Winnipeg Industrial, it was decided that in Shorthorns there should be \$40 for herd—bull and four fe-

being allowed for. Sections will be added to Grade cattle class for herd and four females over 1 year old for dairy purposes. In swine, for Berkshires, Yorkshires and Chester Whites more money will be given.

Fads in Stock Raising.

Walter Lynch, of Westbourne, is a born humorist and can get fun out of a very dry subject. Here is a specimen from his paper read at the Stock Breeders' Convention held at Winnipeg:—My subject is "Fads in Stock Raising." Perhaps

have had some muley cows, and I never had one that could not lick any horned cow of equal weight. Whenever I have seen dehorned cows they were always tied up the same as those that had horns. Did any of you ever see a person or a cow badly gored? I never did, and I have been among cattle all my life; but I have known people to be knocked down and trampled, and I know of a man just now who has his leg broken by a kick from a dehorned bull, and I respect the bull for it. I have always found cows' tails more troublesome than their horns, and I would be very glad to see some improvement made in that part of their anatomy, if it can be done without impairing their milk-



Fruit Garden of J. Parkinson, Two Miles North-East of Portage la Prairie, Man.

males under 2 years; \$20 for second. For bull, any age, \$20; for female, any age, \$20, to be owned by residents of Manitoba and N. W. T., thus shutting out eastern competition. These prizes are special by the Dominion Breeders' Association. There will be three prizes instead of one for herd—bull, any age, and three Manitoba-bred females. In Holsteins, Jerseys and Ayrshires there will be third prizes given all through, where only two were given last year. Sections also are added for bull and two of his get, calved in Manitoba or N. W. T. Also sections for best milch cow. In Ayrshires, the Dominion Ayrshire Breeders give \$15 for bull and four females under 2 years. There will be changes in conditions re milk classes, solids as well as fat

you may think I ought to say something about fads in breeding, but I will not, for there are none in it. If there are any in connection with it, they are in the market. The ordinary breeder is simply a merchant trying to supply the demands of the market. He may try to influence it, which is quite right, for each one has the best kind, the best of the kind, and wants to make the best out of it when he puts it on the market; but they are equally willing to supply you with cattle without horns, cattle with short horns, or cattle with the longest kind of horns for dehorning purposes, though why any one should want to cut a decent pair of horns off a decent, well-behaved cow is more than I can understand. If you think hornless cattle more quiet, I may say I

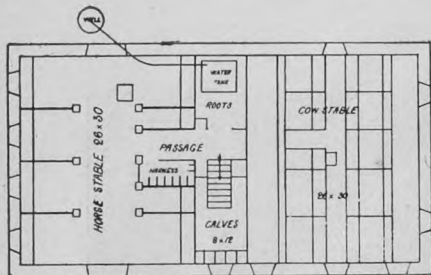
ing qualities; but I am afraid that it is not possible, for our dairy experts have proved, to their own satisfaction at least, that a cow cannot give good milk or much of it whose tail is not of the proper length. I think the rule is the longer the cow's tail the longer the yarn her owner is justified in spinning about her. Some people say dehorned cattle thrive better. Those I have seen have not proved it to me. Others say a cow will make more butter after the operation, and I have lately seen an ingenious theory to account for it. I give it to you for what it is worth. It is, a dehorned cow having no place to wear her rings makes them up into butter. I said I would give you the theory for what it is worth, but I know it is correct, for I have seen the rings in the butter

and heard of them in the market. Others say the operation makes a market for dehorning tools and gives employment to the dehorning fiend, and I think perhaps those people have struck the key to the dehorning fad.

A Calf Mountain Barn.

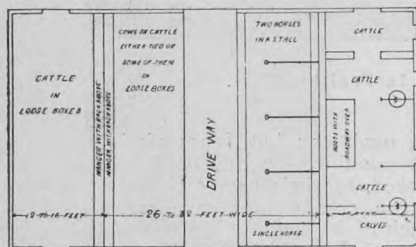
This month we give plan of both floors of the barn built last summer by Ferris Bolton (brother-in-law of S. A. Bedford), on his farm at Calf Mountain. Mr. Bolton has had the advantage of familiarity with the barns previously built by his near neighbors, Martin Nichol, Alf. Bedford, Scott Bros., as well as those round Manitou that have been more widely taken notice of. The windmill on top that operates the pump, feed mill, etc., is the ordinary style and needs no illustration. The carpenter work was done by Mr. Bolton's brother, John, who has kindly supplied the description and statement of cost given below.

Basement—Stone wall, 9 feet high, enclosing horse stable, 26x30 feet, with room for 14 horses and harness room, cow stable, 26x30 feet, space for 19 head of cattle. Between the horse stable and cow



PLAN OF BASEMENT

stable is a space 8 feet wide, one end of which is used for root cellar and water tank, and the other end for box stall for calves, and stairway, with chop bin and water barrel on each side of stairway. Stone floor under cattle and horses, and fine plank flooring in passage-ways; ventilated by openings over windows and doors, which can be regulated to suit the temperature. Water is forced into a tank from the well outside by windmill. The tank rests on oak posts 3 feet high, and the water is run from it to the troughs in front of the cattle, to a barrel in the passage-way, from which the horses are watered with pails, and to a trough outside for summer use. The stone wall is 20 inches thick, with foundation dug 30 inches deep.



FLOOR PLAN

The upper part of the barn is framed with pine timber, sided with British Columbia fir; drive floors are doubled one-inch pine, and hay bays are floored with one-inch ship-lap; shingled with best British Columbia cedar shingles. The side posts are 8 in. x 8 in. x 14 ft. high; purlin posts are 6 in. x 8 in. x 20 ft. high; plates 6 in. x 6 in. and cross beams 6 in. x 8 in.; rafters 22 ft. long. The wind power is furnished by a Chicago aeromotor, 12-ft. wheel, which drives grain crusher

and elevates grain into hopper 20 ft. high, pumps the water and turns the grindstone in first-class order.

The following is the list of material and cost:—

Stone mason	\$82 50
Lime, 110 bushels, at 28c.....	30 80
Lumber, 25M at \$19	475 00
Shingles, 22M at \$2.50	55 00
Paint	30 00
Hardware and cavetroughs	50 00
Windows	13 50
Windmill, with crusher and elevator	175 00
Pump, water tank and piping	65 00
Carpenter work	150 00

Total\$1,126 80

Besides the above estimate, the stone and sand was furnished and the masons waited on, material drawn from the station and workmen boarded.

The Last of the Buffalo.

In a very few weeks the last remnant of the buffalo tribe, so far as Manitoba is concerned, will be removed from Silver Heights, where they now are, to the National Park at Banff. They have been gifted by Lord Strathcona to the Dominion Government with a view to their preservation in the park, but how long they will stay there is another question. It is only too likely that their natural instincts will, in spite of their half tame condition, re-assert themselves and induce them to wander off in any direction.

After several attempts, which proved unsuccessful, The Nor'-West Farmer artist last week succeeded in getting a very good snap shot of the entire herd, which is shown in the centre illustration in this issue. The other two were taken at close range, one of which shows a bull, cow and calf quietly eating their noon-day meal.

The herd numbers 17 in all. There are 5 pure bred males, 11, 7, 6, 5 and 2 years old, and 4 pure bred females, 11, 6, 4, and 2 years old, one aged halfbreed cow about 16 years old, one three-quarter bred heifer 3 years old, one three-quarter bred bull 7 years old, and one three-quarter bred bull 5 years old. Four calves of last year, two of them pure, make up the lot.

It is now well nigh 30 years since the first buffalo calves were brought in by Indians for Hon. James Mackay, of Silver Heights. A little later, when the herd had increased to about 20, they were taken to Stony Mountain, where Sam Bedson had a controlling interest in them. With the exception of the few claimed by Sir Donald Smith as his share, the bulk of the herd, including a few cross-breeds, was sold to "Buffalo Jones," who was then speculating on getting up a company to breed crosses on domestic cows for the sake of the robes, as well as the extra value of the meat. Those who know a little more about the facts could have told even then that not one cow out of a score bred to a buffalo bull would ever do much more good, but the idea caught for a while, till the loss of cows got so great that the enterprise ended in a fizzle.

Besides a few owned by private individuals, there is still a wild herd preserved by the U. S. government in the National Park at the head of the Yellowstone. In the Smithsonian Institute at Washington is a splendidly mounted group of stuffed specimens set up by Mr. Hornaday, who was sent out in 1883 to procure for that purpose a few specimens out of a small remnant then existing in the Bad Lands on the Upper Missouri. Some of the finest specimens were killed on that expedition. The bull stands 6 feet high, and is set up just as he stood at bay, after he had been shot by Hornaday and his leg

BREEDERS' DIRECTORY.

CARDS under this head inserted at the rate of \$1.50 per line per year. No card accepted under two lines, nor for less than six months.

EGGS FOR HATCHING—from Langshans, B. P. Rocks, Golden Wyandottes, 15 for \$2.00, 30 for \$3.50. From Leghorns, Guinea Fowl and Pekin Ducks, 13 for \$1.00. From Turkeys, 9 for \$2.00. Choice birds for sale; also Fancy Pigeons and Belgian Hares. S. Ling & Co., Winnipeg, Man. 2213

W. S. LISTER, Middle Church, near Winnipeg, Man., Breeder and Importer of Shorthorn cattle. Stock always on hand of the best quality and most popular strains of breeding. Parties wishing to see stock met at Winnipeg on receipt of telephone message or telegraph. (1657)

WALTER LYNCH, Breeder of Shorthorn Cattle, Post Office and Railway Station, Westbourne, Manitoba. This herd has competed sixteen times in fifteen years with both imported and home bred cattle and has won fifteen 1st and one 2nd, herd prizes.—1530g

J. F. HINDMARCH, Cannington Manor, Assa, importer of Holstein Cattle. Young Bulls and Heifers in calf for sale: sired by a son of Jewel 2nd; her butter record is 27 lbs. 13 oz. in 7 days. Prices low. Terms reasonable.

SAMUEL McCURDY, Carberry, Man. No more Indian Cornish Games nor Golden Spangled Hamburgs left for sale, but a few extra fine Silver Spangled Hamburgs, Black Breasted Red Games and Pitt Games left yet.

D. FRASER & SONS, Emerson, Man. Breeders and importers of Shorthorns, Shropshire and Southdown Sheep. Pedigree Poland China Pigs a specialty, from the best strains in the United States.

EGGS FOR HATCHING—from B. P. Rocks, S. C. White Leghorns, White Wyandottes, Black Javas and Pekin Ducks. 100 prizes in three years. Eggs \$1.50 per 13. John Kitson, Macdonald, Man. 2234

J. VAN VEEN, breeder of Galloway and Hereford Cattle and Shropshire Sheep, Lake View Ranch, File Hills, Fort Qu'Appelle, Assa. 1588

JAS. BRAY, Oak Grove Farm. Breeder of improved large Yorkshire Pigs. Young Pigs for sale. Address Jas. Bray, Longburn, Man. 1594f

KENNETH McLEOD, Dugald, Man. Chester White and Suffolk Pigs for sale. My stock are prize winners at the Winnipeg Industrial Exhibition.

W. C. EDWARDS & CO., North Nation Mills, P. C. Importers and Breeders of Ayrshire Cattle, Shropshire Sheep and Berkshire Pigs. 1642f

W. C. EDWARDS & CO., Rockland, Ont., Importers and Breeders of Shorthorn Cattle, Shropshire Sheep and Berkshire Pigs. 1643f

J. E. MARPLES, Poplar Grove Stock Farm, Deleat, Man., breeder of Hereford Cattle. Young Bulls for sale. 1718

JAMES ELDER, Hensall Farm, Virden, Man. Berkshires and Tamworths. Young pigs for sale. 1928

W. M. CHALMERS, Hayfield, Man., breeder of Shorthorn Cattle. Correspondence solicited.

A. B. POTTER, Montgomery, Assa. Breeder and Dealer in Holsteins and Yorkshire Pigs. (1633f)

STEEL BROS., Glenboro, Manitoba. Breeders of Ayrshire Cattle. Young Stock for sale. 1731f

JOSEPH TAYLOR, Fairfax, Manitoba, breeder of Shorthorn Cattle. Young stock for sale.

JAS. MURRAY, Breeder of Leicester Sheep. Young Rams for sale. Lyleton, Man. 1627f

Pure Bred Ayrshire Cattle.

Imported and bred for the dairy, with grand constitution. Leading Gold Medal Milk, Butter and prize record Ayrshires, Scotland and America. Importer and breeder choice Collie Dogs. Stock, all ages, for sale. Member of Dominion Cattle Breeders' Association, and purchasers dealing with me secure special low rate.

R. G. STEACY, 1876 Box 720, BROCKVILLE, ONT.

Plymouth Rocks.

The Plymouth Rock, the farmer's fowl, is our specialty, none but one breed kept. Freedom of farm should ensure a good hatch. We recently brought from Ontario a beautiful pair of cockerels, large, well marked fellows. These, mated to our choicely bred young hens and pullets, should give fine results. Eggs carefully packed and delivered at Carman, C. P. R., or Roland, N. P. R., for \$1.50 per setting of 14, two settings, \$2.50. We have a few Yorkshire Pigs, fall litters, both sexes, for sale. Orders are coming in for spring pigs of both Yorkshires and Berkshires.

A. GRAHAM Forest Home Farm, Pomeroy, Man.



At Close Range.



The Entire Herd of Seventeen.



Buffalo Bull.

Buffalo Cow.

Buffalo Calf.

The Last of the Buffalo.

broken. Millions of buffalo were killed between 1873 and 1883, and some of the higher valleys looked white all summer with the skeletons of countless buffalo that had been killed for the sake of their hides, the meat going to feast the wolves.

Brood Mare and Foal.

J. A. McGill, of Neepawa, writes The Farmer as follows:—"At a meeting of the directors of the Beautiful Plains Agricultural Society, held this week, some discussion took place over revising the prize list. Our list says 'Brood mares with foal at foot.' Some of the directors claimed that this was not right, and that it should read, 'Brood mare with evidence of having produced a foal during the season.' The meeting appeared to be pretty evenly divided over it. The writer, with some others, claimed that the foal should accompany the mare, as evidence that she was a success as a brood mare, as a great many fine looking mares, well up in all points, good workers and worth a lot of money, but were useless as brood mares. As our list will be revised at our next meeting, I would like your opinion through The Farmer, and also the opinion of others interested on this subject."

In The Farmer's opinion Mr. McGill's contention is sound all through and for the reasons he gives. Take a good looking ewe in June. She may have one puny, ill-nursed lamb, and another in the same flock that looks poor because she has been nursing two good lambs. There is no possible comparison between the merits of those two ewes. The mare's business as a breeder is to produce a good foal, and if she don't, she should be put in her right place, but not in the prize list. Judge either man or mare by their fitness for the place they fill.

The Farmer has received the following in answer to the question above referred to, and we take pleasure in publishing them in full:—

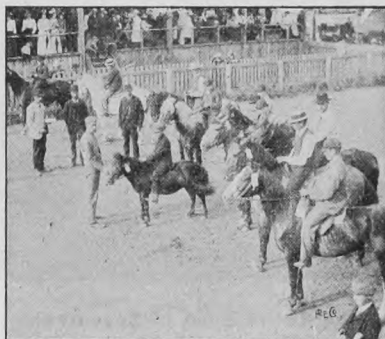
John E. Smith, Brandon:—"I consider that 'Brood mare, with foal by side, heavy with foal, or proof of having produced a foal this year' is fair to all. If the prize were only for 'Mare, with foal at foot,' mares having fall colts would not be allowed to compete. Many farmers think fall colts the most profitable, myself among the number, although it is not practical to have all the colts come in the fall, but it is decidedly best to have the mares which do not have to work in the winter foal in the fall. Agricultural societies, I am sorry to say, do not give any encouragement to fall colts. For instance, I have a colt foaled Oct. 3, 1897. Should I wish to exhibit that colt this summer I have to compete with colts foaled in January, 1897. I should be allowed to exhibit this animal as a foal until a year old, as generally applies to cattle. Again, if a mare loses her foal, and the loss may not have been through any fault of the mare, no matter how valuable she may be, she is debarred from exhibiting. Judges, when making their awards, too often only consider the condition a brood mare is in, without taking into account the situation, whether she has raised a colt or not. In short, I believe that all classes of mares, if actual breeders, should be allowed to compete, even should the colt not be at foot in the show ring—sufficient that the mare has had one, or there is one in expectancy."

F. Torrance, D. V. S., Winnipeg:—"It may be assumed that the object of giving a prize to the best 'brood mare, with foal at foot,' or to the best 'brood mare, with evidence of having produced a foal,' is the

same in each case, namely, to award a premium to the producers of good foals, and thus assist and encourage horse breeding. The object of such a premium is not attained unless the prize is awarded to a mare which distinguishes herself as a mother of good foals, and how is such an award to be made intelligently without the inspection of the foal? The best criterion by which to judge the quality of a mare from a breeding standpoint is the evidence of the foal she produces, and, therefore, I am in favor of having the prize awarded to the best mare, with foal at foot." No doubt, the strict application of this rule might sometimes cause an injustice to a mare which had produced a fine foal that had met with accident or death, but, on the other hand, it would make it impossible for a mare, no matter how good an individual, to capture a prize unless the foal was there to prove her claim to be considered a good producer."

John Ewen, Morden:—"I think it should read 'Brood mare, with foal at foot, or evidence of having raised a foal during the season.' The reason I would put it that way is that a foal might be weaned before the show and the foal not be with her, or a mare might lose her foal at foaling time. Having produced a foal and not raised one, I do not think she should be allowed to show, as she has a great advantage over one having raised a foal."

J. B. Thomson, Hamiota:—"This matter has caused much argument with those



Portage la Prairie Show, 1897.

Judging the Ponies.

interested in agricultural societies. The principal eastern fairs, and a few in Manitoba, have their prize list reading 'Brood mare, with foal of same breed by side.' In my opinion, it does not seem very fair that a brood mare cannot be shown simply because her foal accidentally died some time preceding the shows. On the other hand, should the argument arise that it is unfair for mares suckling a foal to compete against 'dry' mares, especially in the present age, when condition and fitness cut such a prominent figure, then I say have an open class for 'mare, any age,' so that they can all compete. The nominal cost of a diploma, or such like, is generally well expended money by an exhibition board. Directors and judges have to be particular in drawing the line here, as exhibitors often take advantage of and abuse this privilege. For instance, many mares have a habit of giving birth to immature foals, while others produce weak and deformed ones, simply on account of the mare's improper breeding qualities; then I claim these mares that cannot give their foals a proper chance to live and nurse should not be recognized as brood mares. Here a judge has to be careful to be just, and to have enough of direct evidence produced as to how and when the competing mares lost their foals.

Horse Owners! Use

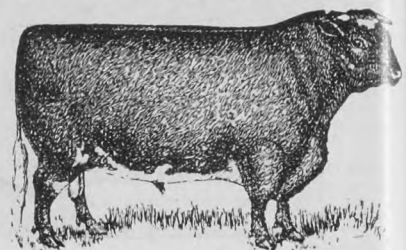
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A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., TORONTO, ONT.

J. E. SMITH, BRANDON.



J. E. Smith has for sale 80 Clydesdale Stallions and Mares, many of them prize winners at Winnipeg Industrial; 85 Shorthorn Bulls, 70 Shorthorn Cows and Heifers, 20 Hereford Bulls, 60 Hereford Cows and Heifers. All animals registered in their respective books. Prices right. Come and see them. No reserves. J. E. SMITH, Brandon, Man. P.O. Box 274, 2202

Large English Berkshires.



I have now on hand four litters farrowed in March, the best I ever had, and I feel safe in stating that there is no better blood in America. These are from mature prize-winning sows and will please the most fastidious buyer. More sows to farrow early in April. Am now booking orders for pairs and trios not akin, to be shipped latter part of April. Send post card for descriptive catalogue. 2252 Address—J. A. MCGILL, NEEPAWA, MAN.

MAPLE LODGE STOCK FARM, R. MCKENZIE, Prop., High Bluff, Man.

Breeder and importer of large English Berkshires. Herd headed by Perfection unbeaten under 12 months in Ontario, winner of 1st prize at the largest shows in Ontario, including 1st at Toronto Industrial, 1897. Some nice young pigs for sale, single or in pairs, not akin from long English Berkshires of the correct bacon type, easy to feed and quick to sell. Herd has been a prize winner at the largest shows in Manitoba. Young pigs ready to ship at 8 to 9 weeks old. Buy now and save express charges. Write for prices. 2297

PLAIN VIEW STOCK FARM

PORTAGE LA PRAIRIE, MAN.



I have on hand a few excellent young Berkshire Boars and Sows of fall litter, by English imported stock and home-bred prize-winners at reduced rates for the next 30 days. Boars are fit for service, Sept., Oct. and Dec. litters. Also a few Cots wold ewes, in lamb to an imported ram, cheap. Orders attended to as usual while I am away in Ontario. 2184 F. W. BROWN, Proprietor.

ASK YOUR DEALER FOR

Rice's Pure Salt

BEST FOR TABLE, DAIRY AND FARM.

It is also a judge's duty to consider the advantage of a 'dry' mare to fit herself over a mare that has her offspring by her side."

J. & D. Stevenson, Wawanesa :—"We think it should be 'Brood mare, with foal by side, heavy with foal, or evidence of having produced a foal this season.'"

W. J. Hinman, V. S., Winnipeg :—"I would make the conditions read, 'Brood mare, with foal at foot, heavy in foal, or proof of having produced a foal this year.'"

1897, there is no distinction between imported and Canadian bred stallions. In the Toronto prize list there are the two classes; the Canadian can show in the imported class, but the imported cannot show with Canadian. I think it is time for Winnipeg to do the same, as there are quite a number of home-bred stallions in the country, but their owners do not feel like taking them to Winnipeg to compete with imported stock."

Geo. Cartwright, Russell :—"I think the better way is for the mare to have her foal

to three or four months; when cattle sheep or pigs are never questioned as to breeding qualities, and it would help to have more competition, which is the life of an exhibition. I could name you a brood Berkshire sow which is a prize-winner, but has never had a litter yet, and she is three or four years old."

John Wishart, Portage la Prairie :—"With regard to prize list, I think perhaps the better way would be to have it read, 'Brood mare, with foal at foot, or proof of having produced a foal this year,' unless there is an extra class or section provided for mares that have not foals at foot, which would not be advisable in the smaller shows, though I think it should be done at Winnipeg. There is no doubt in my mind but that a mare heavy in foal, or one that has produced a foal early in the season and lost it, has a decided advantage over the mare with foal at foot, on account of being so much easier fitted and kept in condition for show, and I think all will admit that it is much harder to keep a mare with foal at foot in condition than one that has no foal. It would also be a hardship to debar a mare from showing simply because her foal died. In judging a mixed class of mares, with and without foals, a judge should, and no doubt would, if asked to do so, make due allowance for the poorer condition of the mares with foal at foot, but in every case I would insist on having proof positive that a mare had produced a foal during the season. I remember a man showing a mare which he said was five months gone in foal at Winnipeg, and the next season showed the same mare with a foal at foot three months old."

D. T. Wilson, Assensippi :—"I think that the directors that claim that 'brood mare, with evidence of having produced a foal during the season,' know very little about agricultural societies. I have been exhibiting horses for twenty-seven years, and have never seen such a statement in print. The just way for it to read is 'Brood mare, with foal at foot.' It is not



Agricultural Fair Grounds, Portage la Prairie, Man.

Judging the Cattle during Summer Show of 1897.

A mare may be a breeder and the foal may have met with an accident, or died, or the mare may not have foaled at the time of the exhibition, especially if held in the summer, and I think it unfair to disqualify any mare on account of the above. I would make the evidence beyond question that she had lost her foal (if so claimed), as it would be a great injustice to allow a mare that had not produced and had been shaped up for exhibition purposes to show against a mare suckling a colt."

J. A. S. Macmillan, Brandon :—"With reference to your question whether 'Brood mare, with foal at foot,' or 'Brood mare, with evidence of having produced a foal during the season,' is correct, the former is the correct one. In the largest shows in England it reads 'Mare in foal or with foal at foot.' As regards the latter form, 'Evidence of having produced' is very vague and covers a multitude of sins. If a mare picks or has a still-born foal, or say suckles her foal for a week, she is eligible, which is not fair to other mares. I am decidedly of the opinion that the foal should be either inside or at foot in the ring. It would be the same for every exhibitor, and plain sailing. The other is neither one thing nor another. It would not be so bad if they crossed out 'produced,' and put reared in, and then there would not be so much ambiguity. I should like to see that word 'produced' altered to 'reared' in the sheep class. I think 'Brood mare, with foal,' is one of the best classes in the list; it encourages farmers to breed and to look after their young stock. There is a tendency to go too much for fat, which is detrimental to breeding in all kinds of stock."

Donald Ross, Cypress River :—"Re 'brood mare with foal at foot,' I have been asking my neighbors their opinion, and the general views of the people are 'Brood mare, with foal at foot, or heavy with foal, or sworn evidence that she has produced a foal during the season.' Let the man showing the mare make affidavit before a duly authorized magistrate or J. P. and show the same to the judges. In looking over the Winnipeg prize list for

at foot, and in my opinion she deserves the most honor, and if the judge is a proper one, he will give the brood mare with her colt the preference, as she could not be expected to be in as good shape as the brood mare with no foal. We exhibitors take advantage when there is a chance. I know a man who, at the Winnipeg Industrial, took a prize one year for a mare heavy with foal and also took a prize next year with the same mare with foal at foot."

John S. Moffatt, Pilot Mound :—"I think the proper way to have the prize



Farmers' Mill and Elevator.

Ogilvie's Elevator.

Lake of the Woods Mill.

Elevator.

Mills and Elevators, Portage la Prairie, Man.

list worded would be : 'Brood mare, with foal at foot, or heavy in foal, or proof of her having produced a foal during this season.' The reason is there are good mares which might lose their foals, not from any blame to the mare, or a good mare might not have foaled soon enough and would still be a first-class brood mare, and just because she had not a foal by her side, could be ruled out, and it would confine brood mares to be able to show

just to allow a mare that has lost her foal in the spring to compete against a mare that has suckled her foal two or three months. The mare is well reduced in flesh, as well as fat and unless the judge is a thorough expert, and is able to judge on points; he will give it to the fat mare every time."

Geo. Allison, Burnbank :—"It should read 'Brood mare, with foal at foot,' as a

mare may have produced a foal and may not have nursed it, when she has a superior chance over the former."

H. Nichol, Brandon:—"This is an old and knotty question that can be argued either way, and is changed oftener than anything I know of. The way it is put in Winnipeg and Brandon list is, I think, about the fairest all round, as follows: 'Brood mare, with foal by side, heavy with foal, or proof of having produced a foal this year.' It seems unreasonable to shut out a mare that is 'heavy with foal,' and the only debatable one is one that has had a foal and lost it at foaling or any time before the show. A mare foaling early, say before May 1st, and losing it at foaling, by being got up carefully for the show, not doing much work, would have an advantage of a mare suckling a foal. Usually such mares are put to work steady, and not being so able to stand it as other horses, are little better for show than one suckling a foal. There might be a limit set, as: 'Having produced a foal since May 1st, current year, or some set date, but I think that might be as well left as it is. The fact that Brandon has had regulations like the above for some two or three years, without changing, is some evidence in its favor, as they have several changes. Would be glad to know what is adopted where this is argued out."

J. E. Morgan, Shoal Lake:—"I would say 'Brood mare, with foal at foot,' for the following reasons: (1) A brood mare's business is to raise a foal. (2) A brood mare raising a foal has no chance to be in the condition a mare has that will not raise one, or has lost one, or is carrying one. (3) The foal should score one-third of the points for a brood mare."

J. W. Knittel, Boissevain:—"I think that 'Brood mare' should be sufficient, provided that the exhibitor be required to produce satisfactory evidence that the animal is kept for breeding purposes; that is in case the judges should think it necessary. Some of last year's prize lists read 'Brood mare, with foal by her side, or evidence of having produced a foal this year, or heavy in foal.' Now, I think that this term gives too much latitude to a partial judge, as will be shown by the following case which I cite. At a fair last year I exhibited a standard bred brood are (Cossack Maid) in a ring of nine competitors. The judge examined them carefully. On coming into the ring a second time for the award of prizes, I was confronted with a protest on the grounds that my mare did not comply with the worded conditions of entry. The protest claimed that my mare was not in foal. The judge himself said he believed my mare to be in foal, but he had to comply with the evidence of the Veterinary Inspector. I was prepared to produce evidence that my mare was in foal, she having been bred to my own horse, and also I could show that I kept this mare for the special purpose of breeding. The mare has since proved to be in foal, and will likely foal in a few days. That is my reason for saying that I think the term 'Brood mare' should cover all the qualification. I have since found out the reason for my being barred out of the ring. The veterinary inspector was interested in the mare that was eventually awarded the first prize, he being agent for a man in Philadelphia to buy this mare, and the veterinary inspector wanted the mare to take first prize at this fair before being shipped, which she could not do with 'Cossack Maid' in the ring. There was another mare barred out, which, in my opinion, was entitled to the judge's

consideration. This mare had slipped her foal, and her owner was in a position to prove it, but as she, too, happened to clash with the veterinary inspector's wishes, she was barred out, although there is no doubt that in the true sense of the word she was a 'Brood mare.' I do not wish to be misunderstood in this opinion. I do not attach any blame to either the management or judges of the Winnipeg exhibition, but I merely cite this case to show how much latitude it gives outside wirepullers in a case of this kind. I think that, should this continue, it would prove to be a detriment to any exhibition."

High Priced Herefords.

A boom in cattle seems to have struck our American neighbors with great force. Mr. C. S. Cross, of Emporia, Kansas, who had a very choice Hereford herd of his own, recently went over to England and bought 40 bulls and heifers from the leading English breeders. The quality of this importation may be guessed when it is stated that at his sale, held March 2 and 3, \$3,500 was offered for one bull and \$1,000 for a bull calf, which were not sold even at those fancy figures. In all 40 imported and 110 home-bred males and females were sold. Salisbury, a bull bred by the well-known John Price, was sold at \$3,000; a bull calf, March On, at \$1,000; Luminous, an imported 2-year-old heifer, at \$1,500, and a 3-year-old heifer at \$1,205. The home-bred herd has won many prizes at the leading state fairs, and Wild Tom, one of the best bulls, is about at the top of the breed in this country. Eleven bulls of his get went for an average of \$440, and 27 females got by him, at an average of \$364. Of the imported lot, 14 females averaged \$563, and 37 males \$595. The whole 144 head sold averaged \$407. No such sale has been seen in America for many a day, and even in England there has never been any sale of Herefords, except one, where anything approaching such prizes were made by such a number of cattle. This was not a closing out sale, and the herd will go on better than ever.

At Kansas City, J. A. Funkhouser and Gudgeon & Simpson held a joint sale, at which 60 head of bulls and cows averaged \$483. The cows averaged \$500; one cow made \$900. The same breeders last year averaged for the same class of stock, \$173. At the same place, H. M. Hill sold eight bulls, averaging \$378, and 23 cows, averaging \$475, the highest cow making \$755.

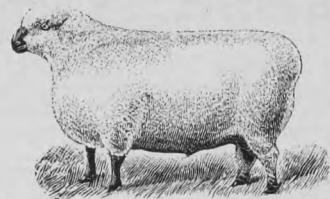
As sires of range cattle, the Hereford has immense popularity in the Western States, and it is the prospective demand for such bulls that has raised the prices of females even higher than that for males. Shorthorns as sires for stall fed cattle are making very good prices, but not as yet to correspond with the rise in Herefords.

The American government report on the amount of live stock in the country January 1, 1898, makes the hogs 39,750,000, a decrease of 840,000; the milch cows 15,840,000, a decrease for the year of 100,841; the oxen and other cattle 29,264,000, a decrease of 1,244,000, and the sheep 37,656,000, an increase of 838,000. The hog supply is the smallest since 1881, when there were 36,227,603 reported, and 7,000 less than the yearly average for the sixteen years since then. Not only that, but the number of hogs reported is 1,715,000 head less than the average for twenty-three years previous to this year. The number of cattle is 9,000,000 less than six years ago.

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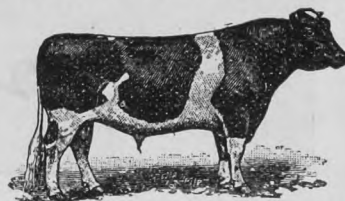
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One rising 2, out of Sadie Teake's Beauty, sister to Daisy Teake's Queen, price \$40. Three nearly 1 year, price \$30. One 4 months, a beauty, out of Daisy Teake's Queen, price \$50. One 2 weeks, out of Sadie Teake's Beauty, price \$20. Scarcity of feed necessitates selling at these prices.

JAS. GLENNIE,

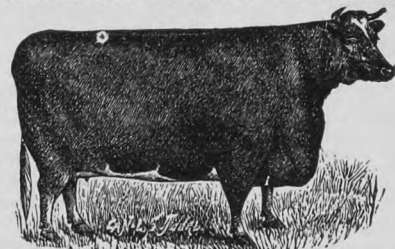
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Among the Breeders.

Frank Crake will this year travel the Shire stallion Nailstone Conqueror in the Glenboro district.

Alex. Colquhoun, Douglas, has imported a German coach horse, which will stand for service at Brandon during the season.

Wm. Sharman, Souris, has sold, at \$300, a Hereford bull and heifer to Jas. Robertson, Glendale. Mr. Sharman has brought from the east a prize-winning bull calf, 15 months old.

Henry Bowler, Stonewall, has bought from Fraser & Sons, Emerson, a 2-year-old bull, out of one of their best Shorthorns. Stonewall is now pretty well established in the Shorthorn faith.

Wm. King, Oakley Farm, Carnduff, Assn., writes:—"Have sold to T. A. Porter of Carievale, the young Shorthorn bull, Mina Duke of Oakley (23814), also the Berkshire sow, Duchess of Oakley.

W. S. Lister, of Middlechurch, recently purchased the Shorthorn cow, Daisy of Strathallan 9th, from C. M. Simmens, Ivan, Ont. The price paid was \$210. P. O'Hara, Glenboro, secured Daisy of Strathallan 3rd, at \$155.

Jas. Yule, farm manager for Hon. Thos. Greenway, Crystal City, writes:—"The stock have come through the winter in good condition, and the demand for good stock of all kinds has been very brisk. Since November last we have sold cattle amounting to \$2,800."

C. M. Simmens, Ivan, Ont., sold fifty head of Shorthorns on March 18th. Daisy of Strathallan, a 17-year-old cow with calf at foot, made \$145, and others of the same family made up to \$325. The herd bull, Blue Ribbon, a good one in his day, made \$215. A 3-year-old heifer made \$280. The average for females was \$152, for bulls \$145.

At the sale of Jas. Bray's Jerseys, on March 11th, there was a good attendance of buyers, and for the females especially very good figures were realized, running up as high as \$100. Aged bulls not in demand. Leading buyers were D. Munroe, Winnipeg, who took seven females; H. Byers, McGregor, seven; H. Keyes, Midway, two females, one 2-year-old bull; Hon. T. Greenway took one female. Several grades were also sold.

David Munroe, of Winnipeg, bought enough of Jas. Bray's Jerseys to ensure him a grand start in that dainty breed. His purchases were Prairie Linda, 7 years; Manitoba Lady, 6 years; Linda's Maid, 3 years; all daughters of Imp. Mountain Linda, and Pet of Oak Grove, a granddaughter. Other purchases were Harold's Queen, \$95; Daisy Dean, \$100, her daughter, Prairie Queen and Prairie Rose. Also the yearling bull, Linda's Pride, dam Mountain Linda, sire Simcoe Chief.

John Isaac, Markham, Ont., had a very successful sale of Shorthorns on March 16. He imported a dozen bulls from the north of Scotland, some of them under a year old. These sold at an average of \$422, the highest price being \$720 for Golden Fame. Three Canadian-bred bulls averaged \$191. Sixteen home-bred females averaged \$170, and of these W. S. Lister, Middlechurch, bought Rose Mont-teath 5th at \$300; I. G. Barron, Carberry, Selina 2nd, at \$200, and Wm. Chalmers, Hayfield, Coral 2nd, at \$130. One-half the bulls went to the States.

J. G. Barron, Carberry, returned last week from a purchasing trip in Ontario. Amongst the Shorthorns he brought with him are Selina 2nd, and Red Princess, which he secured from John Isaacs, Mark-

ham; Roan Betty, from Jas. Russell, Richmond Hill, which was also bred by Mr. Isaacs; Jessie and Lady Hopewell, from James Hunter, Alma. All of the above, with the exception of Jessie, are 2-year-old heifers. He also purchased from Mr. Green of Stratford, a pure-bred Berkshire sow. Mr. Barron reports the demand for pure-bred stock as being brisk. He recently sold his Shorthorn bull, Pontiac, to John A. Fisher, of Macdonald.

W. N. Crowell, Napinka, writes:—"I have just arrived from the east with a carload of horses and pure-bred Shorthorns. Among the cattle is a very promising bull, Ivan (28032), rising 2 years. His sire is Pride of Raleigh (imp.), dam, Star of Dover, one of the best pure-bred milkers in Ontario. Ivan possesses both Cruickshanks and Bates blood, and is pronounced to be one of the gems of the province. An easy way of mending bags is to paste (of flour and water) a piece over the hole, using a hot smoothing iron to press the cloth together. I have taken The Farmer for ten years, and will continue to take it."

R. McKenzie, High Bluff, writes:—"My Berkshires have come through the winter in good shape. A number of sows have farrowed, and more are to farrow in April and May. Have a number of nice young pigs for sale of the proper type, large, thrifty stock, with plenty of bone, out of matured stock, that have been prize winners at the largest shows in Manitoba. I have imported a pair of yearlings from Ontario. The boar (Perfection), unbeaten under 12 months in Ontario, at Toronto, 1897, winner of nine firsts at the largest shows. Also the sow (Charmer), winner of 1st prize under 12 months at Toronto, and first at Brantford fat stock show under 15 months, and champion over all breeds at the same show in December, 1897."

Wm. Kitson, Burnside, writes:—"I have just completed a bargain with G. Green, Fairview, Ont., for the best of the three young Berkshire sows that made a clean sweep in their class last fall at Toronto and all other large fairs, including the fat stock show held at Brantford last December. She is to be safe in pig, and I believe has been served by a hog direct from England. No doubt she is one of the very best Berk. sows ever exhibited in the Dominion. Of course, the price is a heavy one, but I am in hopes that you and your readers will appreciate such importations, and that finally she will return me her cost, with some little profit. There is every appearance of doing a good business in young stock the coming summer and fall. In fact, correspondence the last two months is remarkable, but I cannot understand why correspondents do not write their postoffice and their own names at least reasonably plain. This will explain why some letters are not answered, and I am pleased to say I blame The Nor'-West Farmer for the very large increase of inquiries as to both swine and birds."

Messrs. Steele Bros., of Glenboro, are to be congratulated on two choice Ayrshires purchased from noted and largest imported herd of Ayrshires in America, of R. G. Steacy, Brockville, Ont. Mr. Steacy spared no money or time to procure the choicest dairy strains, combining size and constitution with champion prize records, procurable in Scotland. The heifer is from that noted champion cow, Lady Diana, which carried all honors in her class in Scotland, and since has fully sustained her reputation in Canada. Her butter fat test, 57.9-100, and milk record for six months, at the age of 3 years, of 5,547 lbs., shows what a grand Ayrshire she is. With this cow's choice heifer, a

bull from Imp. Brightsmile, which is fully equal to Lady Diana, will lay the foundation for a choice Ayrshire herd. These two have noted Imp. Carlyle of Lessnesock for their sire, which places them as peers of excellence in dairy qualifications. Mr. Steacy's recent visit to Scotland was a source of knowledge, where choice Ayrshires were exported to America, and by whom, saving him that large expense in quarantine and ocean risk. He wisely placed that saving to his credit, and has what will, if properly cared for, place him at the head as an Ayrshire breeder second to none in Canada. The far-seeing enterprise of Mr. Steacy in importing such dairy stock goes to show what confidence he has in the dairy industry, which is fast coming into prominence, giving those in dairy associations a liberal return for their investments, and where stock of sure foundation to work from is to be had.

J. Oughton, Crystal City, writes:—"My stock are coming through in fine shape. My ewes breed early and have all lambed, 28 lambs with 15 ewes, fine large, strong fellows; some of them are over 1 month old. The early ones are for exhibition purposes and are a good selection for the Winnipeg Industrial next July. The balance of my flock will not lamb till May, which is much safer for a large flock. Two improved large Yorkshires are all I am keeping of that breed. They are in young by the diploma boar at Winnipeg last July. One of them has farrowed 10 nice little white fellows. The sows are selected from a herd of 15 sows, and are of the low set type, deep sides, heavy hams, with straight back and short face. One of them took first as a sow under two years in 1896, second in aged class in 1897. Their grand-dam, Lady Duckring, was the champion winner at the Chicago World's Fair. As I have faith in dairying, I have secured a herd of Holsteins. One of them is the old champion winner, Tempest, formerly owned by Young, of Emerson, which cost him \$200 in the United States. Tempest, before leaving the States, was a winner of first prize at the Chicago fat stock show for the best fat cow, any breed. Manitoba Queen is another of the herd, imported when a calf. She has dropped a very fine bull calf, which is now a month old, sired by a son of Eunice Clay, owned by A. & G. Rice, Currie's, Ont., and winner of the milk test at the Ohio State Fair, 1893, also winner of the \$100 prize at the Toronto test, 1894. Tempest is also in calf to the same bull. The bull I secured to head the herd is well-known as a prize winner. He has been first in his class wherever shown and sweepstakes as a year old for best bull any age. His dam is Daisy Teake's Queen, Jas. Glennie's champion milker. The herd prizes at the Winnipeg Industrial for dairy herds should be first, second and third to give the boys a chance."

Feeds and Feeding.

This is a title of a book of 657 pages by Professor Henry, of Wisconsin, one of the oldest and most reliable authorities on the science and practice of stock feeding. It embodies what the able author has learned in a long experience, and as the fruit of profound investigation on the subject of which he writes so well. He treats of plant growth and its relation to animal nutrition; feeding stuffs and practical feeding. Every man who wants to get a large and reliable acquaintance with these topics should try and get this book, the latest and best contribution to the literature of stock feeding. The Nor'-West Farmer has made arrangements whereby they can supply this work to subscribers at \$2 per copy.

Cattle on Summer Pasture.

L. G. Bell, Junr., Qu'Appelle Station, Assa., writes:—"I read with much interest the article by J. B. Power on page 104 of the March number of The Farmer. Through the medium of your valuable paper I would like to ask Mr. Power the following questions:—

1. What sort of pasture do the cattle run on—wild or cultivated?
2. How many acres per head?
3. Are they corralled at night, herded in the day, or free at all times?
4. How are they fed during winter?
5. In what condition are they when turned out?

I shall be much obliged for the answers to these."

Note.—We have for many years known Mr. Power as a first-rate farmer on a large scale at Ellendale, N. D., but now of Power, which place has been named after him, and listened with pleasure to his addresses at the Dakota farmers' meetings, therefore used his article as found in our last issue. Mr. Bell's questions have been sent to Mr. Power, whose reply we give below. His land is much the same in quality as our own, and what one man can do with well well-bred cattle every other man ought to aspire to.

Mr. Power answers categorically as follows:—

1. Our pastures are native, no cultivated grasses of any kind in them. We are just outside the Red River Valley, on the uplands, sandy soil, the grasses of the kind usually found on all of the upland prairies of the Northwest.

2. In seasons having the average rainfall of this section of the state, $3\frac{1}{2}$ to 4 acres per head give ample supply without injury from too close grazing. This is for our herd, as it usually runs, including all ages.

3. Our pastures are fenced, and after being turned out the cattle are free at all times, not herded, corralled or sheltered.

4. All of our pure bred cattle, cows with calves by their side, others that come in from pasture out of condition from any cause, and all our weanlings, are given a daily ration of ground feed, usually a mixture of ground corn, oats, and barley, and bran and shorts, ranging from one to three quarts each, according to individual need to put and keep them in good condition. Our stock cattle are fed hay at night in the barns, all they will eat clean, turned out to straw ricks in the day, and so long as it last are given a daily feed of corn fodder, but unless out of condition when coming in, are not fed any ground stuff, otherwise treated the same as our pure breeds.

5. When turned out in the spring they are what we will call in good condition: our neighbors say they are fat. We always have some that are in demand for beef by local butchers.

In addition to these replies to the questions of your reader, permit me some foot notes. All of our stock are put in barns at night from about the first of November to about the first to the middle of April, the pure breeds tied up, the store cattle loose, all dehorned, and are given plenty of room and thick, clean bedding: in fact, are made as comfortable as dumb brutes can be made under the conditions of an ordinary farm. With liberal, but not wasteful, feeding, well sheltered and well bedded night quarters they always thrive. We cut our grain well on the green side and thresh in the feeding yards, so all of the straw is in good feeding condition and takes the place of many tons of good hay. If farmers do not overstock their ability to shelter well and feed with reference to individual necessities of their animals, there is no reason why all cattle

raisers in the Northwest cannot carry profitably to full maturity, and then finish for market, instead of selling as feeders and losing the best end of the business.

Sore Shoulders.

The severe work of seeding, harrowing, and other farm operations, following the prolonged idleness or light work of the winter, finds the horse's skin in a soft, tender condition, easily bruised by the pressure of the collar. These bruises frequently result in large open sores, which are difficult to heal while the horse is at work, and a few pointers as to the proper mode of treatment may be opportune. As soon as the horse comes in from work the shoulders should be bathed in cold water, in which a little sugar of lead is dissolved, about a teaspoonful to a pint of soft water. This will cleanse the sore and toughen the skin around it, and in this way help to prevent the sore from enlarging. After bathing the sores, a little finely powdered starch may be sprinkled over each sore. Then, before going to work again, the part should be anointed well with some ointment to heal and lubricate the place and prevent friction. For this purpose oxide of zinc ointment is good. In addition to these curative measures, do not neglect the equally important preventive measures. See that the collar is a good fit, and do not allow it to become covered with dried pus from the sore.

A sensitive and trumpet-shaped nostril in a horse means courage and intelligence. A broad and full forehead, and length from eye to ear, are good indications of intelligence, but the eye and the ear are the speaking features of a horse's face.

The Polled Angus is becoming more and more a favorite with Irish stockmen. Several leading improvers have been using Scotch Shorthorns with excellent effect, the Earl of Caledon's Sign of Riches, a Duthie bred bull, being one of the most formidable bulls in the national shows of England and Scotland, as well as in Dublin.

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It does its work so thoroughly. It is not only the best dip for sheep, but used on Horses, Cattle, Pigs, Dogs and Poultry it is the best insecticide you can obtain. Easy to use and cheapest on the market. Send for a trial can. Quarts, 75c., $\frac{1}{2}$ gals., \$1.50, 1 gal., \$2.50. Prices quoted in larger quantities.

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Answers to Questions.

By an Experienced Veterinarian.

As it is desired to make this column as interesting and valuable as possible to subscribers, advice is given in it free in answer to questions on veterinary matters. Enquiries must in all cases be accompanied by the name and address of the subscriber, but the name will not be published if so desired. Free answers are only given in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and symptoms clearly but briefly set forth.

Lymphangitis.

Subscriber, Stonewall:—I have a horse 12 years old with a badly swollen hind leg. The horse was working hard drawing on not good roads in the month of January. After finishing work he stood in the stable without any exercise for about two weeks. When I noticed his leg swollen from the fetlock right up into the sheath, I poulticed for two or three days, when the swelling came down from the sheath, leaving the leg only swollen. I have been bathing with cold water and a solution of concentrated lye, which seemed to soften the leg and reduce the swelling. But the leg appears to have increased in size last night and to-day, and also seems more painful. The skin is broken in front of hock and also between hock and fetlock, not discharging, but very painful between heel and fetlock. Every time a hand is laid on his leg he throws it up and out. I have been feeding him one gallon bran, with an occasional half-gallon oats, and he is in good condition. The leg is not hot; seems of normal temperature. What would you advise?

Answer—Your horse was, in the first place, suffering from an attack of lymphangitis, commonly known as "weed," and was in a fair way to recovery, when the application of lye solution to the skin already softened by poulticing and bathing has set him back by inflaming the skin. Discontinue the use of lye entirely and apply to the leg the following liniment: Olive oil, four ounces; Goulard's extract, two ounces. Prepare the horse for physic by starving him over night, and then give him a ball composed of aloes, one ounce; ginger, one drachm; soft soap, q. s.

Swollen Glands.

Subscriber, Manitoba:—A number of my cattle of all ages have got large, hard, loose lumps under the point of the jaw, bone; they seem to come on in a day's time; some have broken and discharged, others show no indications of breaking. What is the cause, and what would you suggest to get them away? The cattle seem in good health otherwise and feeding well.

Answer—Exposure to cold in changeable spring weather is the cause of swelling in the glands beneath the tongue at the angle of the jaw. Those that have opened spontaneously and discharged will heal up readily if kept clean. The others had better be stimulated by rubbing with ammonia liniment.

Cymro, Strathclair:—Please give cure for a lump on a cow and steer's throat. It came on the cow last winter. It was as large as a bowl then, but it broke, and finally healed up, but a small lump remained, and I fancy that it has been get-

ting larger lately. I noticed some pus oozing out of it the other day. The lump on the steer's throat acted the same, only it extended to the side of his head. There is no pus coming out of the lump on him, but I have noticed a drop of blood coming out of a small wart like a scab on the side of his head, though there is no swelling. I often have cattle affected with these lumps sometimes on the neck, other times on the throat, but they all disappear without any treatment, and I expected these would have done the same.

Answer—See reply to "Subscriber, Manitoba," in this number.

Thoroughpin.

S. F., Foxwarren:—I have a mare 3 years old; drove her hard all one day when the roads were cut up; next morning noticed what a person might call a "thoroughpin" on her off hind leg. I first noticed it about a week ago; have driven her since, does not go lame. Please advise through the columns of The Farmer what I had better do.

Answer—Blister the swelling several times with fly blister, well rubbed in. It will be unnecessary to rest the mare except while the blister is on her leg. In bad cases it is necessary to treat with pressure by means of a thoroughpin truss, but I would try the blistering first.

Croup.—Lice on Cattle.

Subscriber, Holmfild:—I have seven pigs about five months old, which have something like the croup. They seem much like a child who has the croup. What would be good for them? Also, what is good for lice on cattle?

Answer—Give each of them a half teaspoonful of sulphur in their feed once a day and rub their throats with spirits of turpentine. For lice on cattle apply fish-oil freely, or else wash them with kerosene emulsion.

Bloody Milk.

Reader, Neepawa:—Good milch cow gave bloody milk from one teat last season. After calving this year she was worse. Am unable to use the milk from that quarter. What is generally the cause of this trouble, and can it be cured?

Answer—Bloody milk is usually the result of an injury to the quarter of the udder it comes from. During the formation of milk the udder is remarkably vascular; that is, it receives an excessive amount of blood. The vessels containing this blood are distended and any external force, such as a kick or blow from a horn can easily cause the rupture of one or more of them. Until the lesion is healed the blood will continue to escape, and mingling with the milk in the milk reservoir produces bloody milk. When caused in this way bloody milk does not usually last long and may disappear in a few days after the injury. Another mode in which blood gets into the milk is through the congestion of the minute capillaries, the smallest blood vessels of all. In heavy milkers this is a frequent cause of bloody milk, and will often persist for long periods and only cease when the production of milk becomes lessened. In your cow the latter cause is probably at work, and the only remedy is to lessen the flow of milk by diminished feeding and exercise.

Contracted Hoof.—Influenza.

J. H. T., Forrest:—I would be glad if you would give a remedy through your valuable paper for a horse with contracted hoof, or hoof-bound. I have a horse that seems to suffer from these causes.

Please also give symptoms of influenza and cure for same.

Answer—For contracted hoof, remove the shoe, pare the foot until the sole is level, but do not touch the frog with the knife. The frog is nature's wedge to keep the heels open, and it is the lifting of the frog above the surface of the ground which is a consequence of shoeing that is one of the causes of this condition. Absence of frog pressure favors contracted heels. Frog pressure tends to cure them. Let your horse go barefoot, if possible; if shoes are required, let them be as thin and flat as possible, to allow the frog to touch the ground. Let the horse stand on an earthen floor if possible; if not, pack them frequently with clay or linseed meal poultice. To stimulate the growth of a larger hoof the coronet should be blistered at intervals of two weeks with a fly blister. If this treatment is carried out the feet will gradually improve in size and shape. Influenza is known by the symptoms of a feverish cold, high temperature, quickened pulse, cough, nasal discharge (not always), quickened breathing, loss of appetite, great weakness. There is no specific cure for it, but each case requires to be treated according to the urgency of the symptoms. All, however, are benefitted by rest, dieting and good nursing, and without these no treatment is good.

An Irritable Bladder.

Subscriber, Glenboro:—Can you give me some information about my horse. He makes his water 12 or 14 times a day when working hard. Does not appear to be anything wrong with him when idle. Is rough in the hair, with pimples over him. Has been that way about three years.

Answer—The frequent urination may be relieved by feeding your horse such things as are known to be soothing to the urinary organs; of these flax seed, boiled, is the best, and, as an alternative, boiled barley. Do not administer any saltpetre, resin, or sweet nitre. Keep the skin healthy by regular grooming and improve his general health by giving him, twice a day in his feed, a tablespoonful of the following tonic powder: Gentian, six ounces; ginger, two ounces; sulphate of iron, two ounces. Mix.

Re Lumpy Jaw.

Enquirer, Morden:—Would it be wise or safe to use a bull with lumpy jaw to serve dairy cows? Would flesh of bull so troubled be fit for food?

Answer—Lumpy jaw cannot spread from animal to animal, except by means of the germs which escape in the discharge from the diseased "lump." Consequently, the bull will be safe to use, if the lump is not discharging. Provided the disease is confined to the head the rest of the carcass will be perfectly wholesome for food.

Lameness.

Farmer, Whitewater:—I have a mare and on her front leg just above the fetlock is a swelling something like a windgall. It came on last spring and in the fall she went lame. Put her under medical treatment, but seems to have done no good. Will a blister do any good? What kind of blister is the best? The mare is still lame, and it seems to be very sore.

Answer—Your mare has inflammation of the sheath of the flexor tendons, and the lameness may be difficult to remove. I would advise having the part "fired" by a skilful man, but if it is impossible to have this done, you had better blister it repeatedly at intervals of two or three weeks, letting her rest in the stable all the time. A fly blister is the best.

To Prevent Calves Sucking.—Eczema or Mange.

Subscriber, Gliichen :—Please let me know through your paper if a yearling's tongue can be split or cut to prevent it from sucking cow without doing it any injury ; if so, where ? Have heard it can be done. Range cattle with some skin disease ; first hair looks wet, partly from licking, and I think there must also be little pimples, or such like, breaking out as well ; then hair comes off, and by rubbing (it seems very itchy) the skin gets very sore ; starts on top of neck and shoulders and spreads all over the animal, in some cases slowly, in others fast. What is it ? Will it die out on green grass in the spring ? Is it dangerous ? Please give us as cheap a cure as you can, as we will have a large number to treat.

Answer—There is no operation of the kind known to us which would not permanently injure the calf. The disease affecting your cattle is either eczema or mange. The former is not contagious and is usually caused by faulty stabling or feeding arrangements. The latter is contagious, and is caused by a minute parasite, which lives and multiplies on and in the skin causing intense itching. The diagnosis may be made certain by detecting the parasite on the skin. Place the animal in the warm sunlight and examine the skin with a magnifying glass. The parasites may be seen as little white specks crawling about. Or scrape off some of the scabs and scurf from the skin, place them on a dark surface in the sun and examine. If the disease is eczema it will disappear when the cattle get on the grass, but if mange it will require persistent treatment. This consists in washing the skin with soft soap and water to remove crusts, and then rubbing in some application fatal to the parasite. Creosote in oil is most effectual in the proportion of 1 to 20, but there are many other mange cures.

Gapes.—Ringworm.

Subscriber, Plumas :—1. Will you kindly let me know through The Farmer what will cure gapes in chickens ? I have one that is very bad, and has a little lump in her throat and cannot swallow anything. 2. What will cure a horse from eating the neckyoke and cross lines when hitched up ; in fact he eats anything he can get his teeth on to. 3. Give me a sure cure for ringworm on calves.

Answer—1. Take a stiff feather and strip it all but the tip, dip it in turpentine and pass it down the chicken's throat, twirl it round and withdraw it. Do this once a day and rub a little turpentine on the outside of the throat. 2. This is a bad habit and difficult to cure when well established. Procure a "cribbing strap" at the harness maker's and let the horse wear it continually. 3. Make a strong solution of common salt and apply it to the ringworm several times a day.

Hydrocele.

A. McD., Selkirk :—Bull, four years old, has right testicle swelled to about size of two quarts, left one flattened and decreased very much ; has been in this condition about two months ; is in fair condition otherwise. Please prescribe. Is he fit for service ?

Answer—The enlargement is probably due to a collection of dropsical fluid in the sac which contains the testicle. It will require a surgical operation to withdraw the fluid and prevent its reappearance. While in this condition the bull is probably impotent, and you would be wise not to use him until cured.

Irritable Bladder.

A. A. G., Glenboro :—My horse makes his water four or five times a day when working hard ; when not working, he seems to be all right ; has been that way three summers.

Answer—This is a case of unusual irritability of the bladder, which becomes slightly painful whenever distended. The reason why it is seen in working hours only is that the urine during work is more heavily loaded with urea than at other times, and this irritates a sensitive bladder. The condition is not serious, but may in time lead to the formation of a stone in the bladder. Flax seed tea may be given occasionally as a corrective agent.

Sore Nose.

Subscriber, Hyder :—Have a pig with carbuncle or something of that kind on point of nose just back of ring ; been there for three months ; does not seem to harm it any, but would like to know what it is and cause, with cure. Is it likely to injure it in time ?

Answer—The presence of a carbuncle on a pig's nose would lead one to enquire if he were of strictly temperate habits, but as we can safely exclude alcohol as a factor in the disease, it may be set down as an inflammatory growth caused by the irritation of the nose ring. Would advise you to paint it with iodine tincture, double strength, once a day.

Abscess.

Subscriber, Saskatoon :—Have three-year-old mare which has run out winter and summer until first of January, then stabled, and broke in about the first of March. There came a swelling just below the breast about the size of a goose egg, and is now about twice that size. It is soft, as if there was water in it. What is the best way to treat it ?

Answer—This is probably an abscess caused by the pressure of a tight girth or martingale. It should be lanced, and the cavity washed out with carbolic lotion, one part carbolic acid to thirty of water, injected with a syringe. Continue to wash it twice a day until healed, and keep harness from touching it.

Transmission of Infection.

A Brief Study of the Way in which Infectious Diseases cause Death—By Dr. T. V. Simpson, V.S.

When we speak of infectious diseases we mean diseases due to specific living micro-organisms of a very low type, generally of vegetable origin and transmissible from one animal to another. These organisms are so small that it requires a very high power microscope to detect them floating in the blood or grouped in colonies in the tissues of diseased animals. Certain species of germs will cause certain diseases. Bacillus tuberculosis is the only cause of tuberculosis or consumption. Bacillus anthracis is the only cause of anthrax. Bacillus typhosis the only cause of typhoid fever. Bacillus mallei the only cause of glanders. Bacillus Tetani the only cause of tetanus or lock-jaw, and bacillus of variola bovina the cause of small-pox and cow-pox. Other infectious diseases, such as influenza, measles, scarlet fever, etc., are believed to be caused by certain germs or bacilli, but the exact micro-organisms have not been isolated, nevertheless, observation demonstrates the fact that they are infectious in a very high degree and that the germs may be carried from one person to another, either by direct or in-

direct contact or through the medium of the air.

A great many people think that these germs are the direct cause of death. Naturally one would think so, but such is not the case. All living beings, whether animal or vegetable, must grow and develop and to sustain life they must get nourishment and throw off waste matter. Now these small organisms grow extremely rapidly, and consequently great changes take place in their bodies.

Large amounts of poisonous matter called toxins are eliminated, and it is these toxins, and toxins only, that death is due. There are exceptional cases, as death from suffocation in diphtheria, but the presence of toxins in the blood is the cause of more deaths than suffocation in this disease.

The toxins, or poisons, which germs produce in the animal body, are held in solution in the blood and carried to every part of the body. The brain and spinal cord receive their share of the poisons in the blood, coma or convulsions are produced, rising or lowering of temperature takes place, most frequently the former ; the functions of the different organs are interfered with, strength is lost and well-marked symptoms of toxæmia or blood poisoning are recognized, and if the animal economy has not enough strength in store or does not receive strength by artificial means, to wage battle against and eliminate the poisons from the system, the patient must surely succumb.



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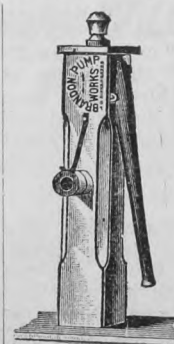
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At Wawanesa.

(See illustrations, p. 161, this issue.)

I have been out in several directions lately, but my principal interest centres in an institute meeting at Wawanesa, where I was asked to go and discuss the question of stock buildings. It is a good place to go for almost any purpose, in which capable criticism is to be a feature. There is no fun to me in talking on any open question unless there are people there who can talk back to good purpose, and show by the questions they ask and the comments they make that they are able to judge on the points brought out. In this, as in most other fields, there are broad general principles to be kept in view, while points of detail get at the same time a fair share of attention. Our finances as well as the fitness of the buildings must be consulted, and what may be a very suitable and every way proper investment for a man with \$1,500 in his pocket after all his obligations have been met, may be a very foolish investment for a poorer man, if prices happen to fall back a good way next year, or crops come out poorly. The fitness of things generally is to be consulted as well as the fitness of any particular plan for the man who wants it. In my opinion, we will best fill the bill by having part of our buildings of a permanent and more expensive type, and part of them such that, in the event of our needing to remodel, it can be done at small expense and moderate sacrifice of material.

The relation of the building we plan to others already on the ground should also be considered. If we need to spend half a day every now and then digging tracks among the snow in our yard or fencing our roofs to keep cattle from walking over them and breaking their legs, there is something radically wrong in our original plans. When we get into the way of having a 5 or 10-acre area enclosed by windbreaks that will help to keep the barnyard fairly clear of snow, it will be a huge step in advance. Only those who have homesteads half-buried in snow all winter, and soaking with water till the middle of June, can realize the comfort of having a good natural bluff in which to build, as some fortunate settlers now enjoy.

Convenience for feed and feeding are big things to a man with a lot of stock to feed, and water may be put along with these. Think of a newly-calved cow that shivers the moment she is outside the stable door, having to face a wind and drink from a frozen trough a hundred yards away, not to speak of the creek a quarter of a mile off. Or a load of straw is laid in the yard to be buried in snow, and thereafter dug out before it can be got to the beasts as feed or bedding. Every stable should be so constructed that in a bad spell of weather stock can be fed and watered for a week on end without going out of doors. And the windows should not only let in light when not furred over with an inch of frost inside, but they should invite sunlight, and a lot of it.

I began my talk at Wawanesa with a rapid sketch of the very substantial barns built round Manitou and other good districts, some of which have stood the test of several years as regards suitability. The octagon barn of Alex. Cochrane has already been shown in these pages, and has many points of advantage for those who

can afford to pay his price. The man who can on his own steelyard weigh his cattle every week if he likes, is away ahead, and I like much that part of Mr. Cochrane's equipment. In this issue is given the plan of the barn of Ferris Bolton, Calf Mountain, a recent erection, made after seeing dozens of others. I admire very much the judgment shown in most of these buildings. But there are people who think that a cheaper building would do their turn till they see how things go with them, and for their requirements I commend the building roughly blocked out in this issue. The central block, with loft above, is a building that will always be wanted, and well worth the money, no matter whether we are to follow cattle or go mostly for wheat. The side wings can be made in a very rude way, and for store cattle, or even feeders, a wall of shiplap, dry before being used, is about all that is needed. The roof for these wings may be anything from sods over a layer of straw to good shingles, for we have no rain in the season when alone such accommodation is wanted. Everybody is familiar with such buildings already, but I want to show here wherein I differ from most of them. I turn my building to be square with the sun at 11 o'clock, and thrown in a lot of sunlight that will reach far through. Most of such buildings are stuck down without regard to this, and some of them have hardly any light at mid-day, let alone sunlight. I was in a barn lately at mid-day with all the light on the two sides. The gable was set the same as mine, square to the mid-day sun. But the windows were so furred over inside that I could not tell the color of the cattle till the door was opened. I don't object to side light if I can get no better, but the farmer who cannot distinguish between north and south light for the health of his cattle is a back number. Sunshine comes in duty free and costs nothing, and to go without it is poor economy. It makes no difference to my idea whether the barn proper is 26 or 32 feet wide, or any way from 36 to 50 feet long; on that each man must decide for himself. I put the same doors, but fewer windows, in the north end as in the south. The loft need not be large enough to hold a winter's feed, but should hold a dozen loads at least, and for that reason should be 7 to 10 feet to the wall plate on which the roof stands. To get a road in for loaded wagons, and assuming there is only a flat site to build on, I make a roadway 10 feet wide at the centre of the right hand side, and raise a small gable on the side of main roof to let in a loaded wagon. Under this roadway I store roots or keep calves. In dry situations I would dig out say four feet deep under the centre passage, and have three or four flooring boards here and there to lift out, so that roots can be dumped easily and keep safe. This has been done by the Frasers at Emerson, and served the purpose well for many years.

To save labor in feeding is a great point. By my plan every beast can be fed in a wholesale way—shoving hay or sheaves or cut straw down the boarded in shoot that runs along the whole of each side. I would have the lowest two or three ft. of that sparred like a horse's hay-rack, so giving cattle less chance to pull out and waste what they don't want to eat. Under the whole of this I put a manger a foot further out on each side than the size of the feed shoot. This will catch all the chaff and shorts that now goes among the bedding and is lost. To have only a manger on the ground and have fastidious cattle nosing round among their feed and shoving lots of it out is a poor style, and an upright rack infinitely better policy. It makes no difference to my policy whether the stock is cattle or horses, stockers or feeders. You arrange

the divisions and let forty or four run together, or tie some by the head, as you see fit. I mean to let a month's manure or more lie under the loose stock, so as to take up all the urine and half rot the straw before it goes out to be spread on the land, as it should be all through the winter. In the wings, where I assume that stockers mainly will be kept, I put slip gates or bars in each division, so that a sleigh can be driven from end to end when on fine days I turn the stock out to get their space cleaned out. If I have a water supply, it will pay to have a large tub between each two divisions, from which they can drink at will, and connect this tub by pipes to the well or cistern.

Then there is a lot of straw to be fed to stockers. I would have besides the feed supply from loft, a hatch here and there in the two low roofs, by which straw can be fed, and with a cyclone thrasher a huge quantity of straw and chaff can be piled on these roofs. David Munroe built hay stacks all over his sod roofs and fed down just as I say here, saving both food and labor to a great extent. If you feel like spending money on a windmill, it can be fixed on top of such a barn as well as on any other.

If, besides the pile built on top of the wings, 20 to 50 loads of straw are threshed up against them on each side, it will be very easy to contrive a method by which cattle inside can get to eat without wasting it. All I go for here is the outline of a stable combining cheapness, convenience and great utility, with the chance to remodel, if need be.

Let me point out that if stock are fed rich feed a few sows can winter along with them and cost next to nothing. Our American cousins annually feed hundreds of thousands of hogs on the droppings of well-fed cattle. It don't look nice, but I have eaten such pork, so most likely have you. I want to taste rattlesnake pork whenever I get a chance. It won't kill me.

My plan is open to suggestions and improvement, but if you want to criticize, please read twice before you start. There is nothing so tiresome as to answer the criticism of a man who takes up his pen before he has studied your meaning, and, of course, makes you say what you never meant.

When I am on building let me mention the recently built farm house of Peter Elder, south of Blyth school house. According to a good few reliable authorities, a man on such land as his ought to have been by this time in pretty low water. Instead of that, he has built and furnished a house that is worth going ten miles on a rough day to see it. I cannot go into details, but it is all there, and no mistake, a model inside and out, a credit to the architect, the workman, the owner and the housekeeper. I have built decent houses myself, and think this one will stand a good deal severer criticism than my barn plans. If a photo would do it justice, I should want our own artist to call round and see it. His nephews, too, are a lot of hustling boys, and among the best plowmen of the district.

There was a very full discussion of my plan by several capable critics. Even when a man has a good barn already, he likes to compare it with those put up elsewhere. In some parts of this district stones are not scarce, but some would like to try concrete. I have built some concrete in my time, but it is not easy by verbal description alone to convey a correct idea of the best methods. Two points let me mention. It is folly to build without taking out a good foundation track, and starting on ground of the same firmness. To prevent cracking at the corners, a frequent trouble, bed in at two or three different heights a strand of good barb wire reaching round a yard or two

each way. A little dodge like that will save your reputation as a concrete builder.

Last year this Institute carried through a plowing match that excited considerable interest, but made a greater drain on their finances than they cared for. There are not many people in a town like that on whom to levy for prizes, but it was still decided to have another in the season, and as I think very fairly, to separate last year's prize winners from new aspirants, but with permission for any one to take a pull in the highest class. At Blyth, where I went next, they have, I understand, about \$250 worth of prizes to offer, but I am not quite sure they have definite ideas as to what constitutes high merit in the workman. A judge from outside is pretty sure to be brought in, and will have his own ideas about the job, will, of course, decide accordingly, and the man who does good work on slightly different lines may get scanty justice. A standard for plowing is to my mind as necessary as a standard for poultry, and now that matches are being arranged for all over the country, we cannot formulate a standard a day too soon. Any man should be welcomed, even if he came a hundred miles, and I hope to see at the Winnipeg Industrial a score of our very best plowmen collected to show us what good plowing is. There is a big difference between plowing and poaching the land that some people in Manitoba don't yet see.

This district had last fall a splendid rain, very little seen elsewhere, that started a thick crop of pig weed on the fallows, the actual outcome from which I shall watch with considerable interest. The land should be compact and full of moisture; the roots of the frozen weeds will keep it from blowing away, and there should be comparatively few crop weeds where otherwise there must have been a great many.

I spent a couple of days with Sam Martin, north of Rounthwaite, whom I have long known as a progressive farmer, made in Manitoba, and a good sample of the product. He spent years before coming here in an engineering establishment, which has enabled him to run a threshing outfit with good success. He now works with a Minneapolis Cyclone and 22-horsepower engine that appears to fill the bill, and saves one of the most unpleasant of all the jobs of a threshing gang — the handling of the straw. Martin last year hauled into his yard 128 loads of grain, the straw from which, piled up in the middle of his yard, was all eaten up by the end of February. There is no necessity for a wideawake man burning the straw on his wheat farm, and the cattle on this farm are not only numerous but thrifty and growing all the winter. I saw two April calves from Shorthorn grades by a Galloway bull, about as heavy as half a dozen that sometimes come in my way. One pure Galloway is not as big as the grades of his age. Mr. Martin now wants to try a milking Shorthorn bull, but I think his last spec. in bulls was not a bad one. He raised 14 acres of corn that proved very hard in the stalks and a ruin to the binder it was cut with, but he perhaps cut too low, where there is hard bone in the stalks. He thinks very highly of the corn mixed with straw as a succulent and palatable feed, but to mix the two in the fall, as Mr. Bedford did, is too much for an ordinary farmer in his busiest season. He sows by stopping all the holes with rags, so as to have rows three feet apart and one seed every 4 or 6 inches in the row. Early sorts always preferred. Several years ago he and his brother went out one very rainy day and sowed the pasture meadows with Kentucky blue grass. The rain washed it into the earth, and but little more could be seen of it for years. Now it is the earliest and latest pasture

in the neighborhood and stock fed on it make special gain. Sown under ordinary conditions scarcely a plant of that grass would ever have been heard of; now it is a perennial that no bad usage will dislodge.

Mr. Martin crowds a lot of cattle into a low shed, where their manure accumulates, as I have said should be done, and it was partly to meet his wish for extended building that I prepared my own plan. I find that dehorning is pretty frequent with cattle kept in this way.

A bite of barley chop along with the straw and Indian corn is Mr. Martin's standby for wintering dry stock. It may seem rather curious when I mention that Mr. Martin and others here find two-rowed barley the only sort they can grow to any profit. Many of my friends would hardly put in two-rowed if they got the seed for nothing, and in this case I think it possible the soil, light sandy loam over clay, accounts for the difference. Norfolk, England, one of the finest counties for malting barley, has a sort of sandy soil, perhaps very like this. I hope later on to hear of some experiments made here by Mr. Graham along the line of grain growing on subsoil plowing.

Stony Mountain.

This name suggests something else than farming, as a rule, but, I can remember since it had a \$750 bull and McAllister was a name of note in the Shorthorn world. I went out the other day and saw one or two of the daughters of this great bull. Hanlan (3168) bred by Cochrane, of Hillhurst, and imported here when a good bull, was rather rare. The cows are now gone with age, but both of them have been steady prize-winners at the local show. Mr. McOuatt, their owner, has a herd of 30 pure Shorthorns, and in a quiet way supplies good dairy bred bulls to a considerable number of farmers round, and Stonewall has its full share of this class of stock, milk as well as meat being in demand. Mr. McOuatt has just now a roan bull, "Joe Martin," from Haverly's Duke of Lyndale (13660), bred by the Greigs, the bluest of blue blood, descended from 4th Duke of Clarence, the

world-beater. Even in grading good blood tells, and I saw steers up to 1,500 lbs. worth 4c., fed in the open all winter, or at least in a sheltered bush near. Mr. McOuatt intends to feed such stock in no other way, only a shed to keep out the snow. They do far better in spring than house-fed steers. For one thing let me say they get more sunshine, a thing very scarce in the dietary system of some farmers I know. The little girl in this issue who had swallowed a spoonful of sunshine was wiser than she knew.

Mr. McOuatt is trying to fatten these aged daughters of Hanlan, but it is uphill work. Damped feed is the only way I know, given when milking and a month after being dried up. His heifers are bred at 3 years to ensure strength. He has killed 100 cattle this last year and never seen any tuberculosis; like Walter Lynch, thinks it a fad. Of his younger females, Duchess of Redcliff and Lucy Mountain are breeders of the true dairy type. Tippto also is a great milker. Mr. McOuatt has also a Clydesdale horse that leaves good stock and a clear Grit that is in request for general purpose stock.

At the Penitentiary farm there is always a lot of capital pigs that bring fancy prices as pork. Chester Whites, from K. McLeod, Dugald, and Berks is the favorite blood as growers and feeders. I think them good. I want the city advocates of sugar beets to get a dozen acres planted here; the soil is the best I know for the purpose, and plenty of hands.

R. W. M.

A Visit to J. A. McGill at Neepawa.

The Neepawa district has long been noted as being among the best in the province for wheat growing, and the fine buildings and other evidences of prosperity, which abound on every hand bear silent testimony to the fact that this is one of Manitoba's most favored localities, and that it has been filled with the best kind of settlers. But in other matters than good crops has this part of the country won for itself a name. To farmers who have taken any interest in swine breeding, the name of J. A. McGill, of Neepawa, will need no introduction. I was

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is the name to remember when buying Sarsaparilla. Dr. Ayer's Sarsaparilla has been curing people right along for nearly 50 years. That is why it is acknowledged to be the sovereign Sarsaparilla. It is the original and the standard. The record of the remedy is without a rival,—a record that is written in the blood of thousands, purified by its power.

"I nursed a lady who was suffering from blood poisoning and must have contracted the disease from her; for I had four large sores, or ulcers, break out on my person. I doctored for a long time, both by external application and with various blood medicines; but in spite of all that I could do, the sores would not heal. At last I purchased six bottles of Ayer's Sarsaparilla, thinking I would give it a thorough trial. Before the six bottles had been taken, the ulcers were healed, the skin sound and natural, and my health better than it had been for years. I have been well ever since. I had rather have one bottle of Dr. J. C. Ayer's Sarsaparilla than three of any other kind."—Mrs. A. F. TAYLOR, Englevalle, N. Dak.

Get Ayer's Sarsaparilla.

pleased during March, while in that section, to have an opportunity of paying a visit to his farm, and I must say that "Lakeview Farm" is a very pretty and interesting place to visit. Mr. McGill's farm is located within half a mile to the south of the town, and his handsome residence is situated on an eastern slope overlooking Park Lake, an artificial body of water which (though at present freed by a break in the dyke) fills a large basin and makes the situation a beautiful as well as advantageous one to occupy. Mr. McGill is one of the farmers who believes in "knowing something about everything and everything about something," and the "something" which he has made his specialty has been Berkshire swine. He takes great pride in his pigs, and is always pleased to talk about them. Although he has a large number, I was told that there was not a pig about the place but was a thoroughbred Berkshire. His herd taken as a whole would be hard to beat, while some of his favorites are especially worthy of mention. Besides young and growing litters, Mr. McGill has a standing stock of three boars and eight brood sows. His finest pair are "Fitz Lee" and "Nettie Lee," a boar and a sow which he has just imported from Ontario. Both were bred by J. G. Snell, and were bought in by the present owner from T. A. Cox, Brantford. They are a remarkably large and well formed pair, and aggregate a shipping weight in crate of 1,600 pounds. They are both two years old and are from "Baron Lee." Besides twelve other 1st prizes, "Fitz Lee" has won 1st at the Toronto Industrial in 1896, and 2d in 1897. "Nettie Lee" has a like record in prize-winning in Ontario, and is, I think, perhaps the best Berkshire sow I have seen anywhere. She is in pig to Mr. Cox's "Perfection," and was expected to farrow about April 1st. Better known in Manitoba, however, are the others of Mr. McGill's herd. "Hero" is three years old this spring, and will be remembered as having taken the 3rd prize at Winnipeg last year. He is also of Snell's breeding, and is of very large and strong build. "General Booth," one of his own breeding, a boar of seven months, is a promising young pig, is of splendid build and very growthy.

Among his breeding sows are to be found some extra good ones. "Nora" particularly took my fancy. She was the 2nd prize-winner at Winnipeg in 1897, and afterwards succeeded in beating Winnipeg's 1st at the local show. She is three years this spring; is a pretty sow, deep and extra well hammed. "Lady Clifford 8th" was bred by S. Coxworth, Whitby, Ont., and when brought to Manitoba won 1st at Winnipeg, Brandon, and Portage la Prairie, and diploma as best sow of any age at each place. She is the dam of "Lady Clifford 10th," 1st prize sow shown by F. W. Brown, Portage la Prairie, at Winnipeg last year. "Dimple," a sow of Mr. McGill's own breeding, is another of his prize-winners at Winnipeg in 1897. "Rosamond" he calls his "business sow." She has farrowed 42 pigs in a little over 12 months, and had when I saw her a litter at her side. She is the dam of the 1st and 2nd under six months at Winnipeg in 1897. "Prairie Queen" and "Daisy" also each had a litter of young pigs, and have a record of prize winnings. "Jubilee Bet," a young sow, won 2nd at Winnipeg last year, under six months. There were, besides young litters, very few growing stock, as Mr. McGill says that he keeps his pens pretty well cleaned out. He sold about 60 last year. His other fine sows are all due to farrow about April 1st, and will give him a great many to dispose of this spring, but he is in hopes of doing very well with them all. One thing which I noticed, and which pleased me was that

none of the pigs were kept fed up in the fancy show style so prevalent among many stock breeders. He does not believe in too heavy feeding for growing or breeding pigs. Any farmer or stock fancier who finds an hour to spare in Neepawa can spend it very pleasantly, and learn something as well, by taking a look through Mr. McGill's farm and pens.

G. B.

Notes by the Way.

John McRae, a well-known farmer of Neepawa, reported a rather strange case to me of a good mare which he had recently to shoot. Last fall he noticed her beginning to act queerly at times. She began by manifesting an unwillingness to be led by the halter. Soon she became so that if anything touched or pulled upon the top of her head she would rear up, strike with her front feet, and perhaps fall over backwards. It seemed as if any pressure on the top of her head would start her into a fit. Otherwise she seemed to be in good health, was in good condition, worked well, was not cross or vicious and seemed perfectly intelligent. He took her to a local vet., who said he did not understand her case very well, but thought that the pressure of a wolf tooth might by nerve connection have something to do with the trouble. He extracted the tooth, but this did not remedy the matter. She was affected more or less for three months, but there appeared no external swelling, and there were no discharges from the nose. By and by she became so bad that she could not be tied up, as the pressure of the halter was sure to make her frantic. Gradually she became worse, until during the last week her tongue became paralyzed, and she could not eat, and so had to be killed. The owner thought that some one else might have seen a similar case and might be able to explain the trouble.

* * *

The public schools have and are doing a grand work for the country, but sometimes one meets—even in Manitoba—with cases of density truly deplorable. Just

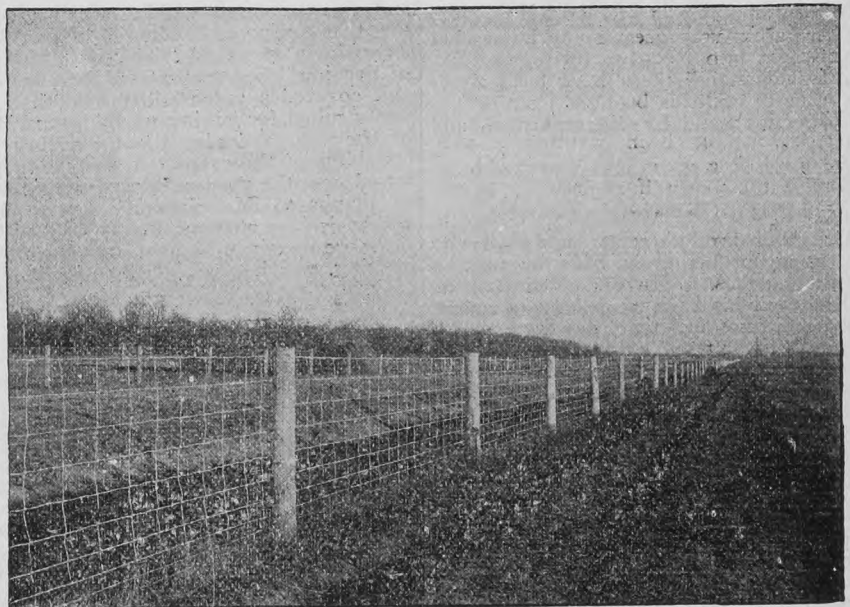
shortly I was talking to a farmer and happened to use the word "agriculture." "Agruculture!" he repeated; "what's that mean?" and his nonplussed expression showed me that I had waded into our English beyond his depth. His six-year-old son could probably have told him the meaning of the word, but I felt sorry for the man who had followed agriculture all his life, yet didn't know what I meant.

* * *

Business men of most branches agree that it pays to advertise—that is through a common sense channel and after common sense methods. A great many farmers do not believe anything of the kind, and rather regard advertising as an outrage upon the reading public and a waste of money. There are many exceptions, of course, but this style of thinking is all too prevalent. Recently I visited the home of a farmer, who was launching out into pure bred poultry raising, but who did not know where to secure eggs or stock from a reliable source. He was not a subscriber to The Farmer, and had the impression that there were no pure bred poultry raisers in the province—at least, he knew of none. As a result he was about to send away across the line for a setting of eggs, and was deploring distance, cost of transit, etc. When I showed him the ads. of our enterprising dealers he was more than pleased, and I have no doubt that ere this some one of them has booked an order from this farmer. Only another evidence that it pays to use printers' ink.

* * *

I was pleased to see in last month's Farmer the synopsis of a paper by so able an authority as Mr. Bedford relative to bee-keeping. Having been among a great many of the farmers of Manitoba in different places, I have often wondered why they were so tardy in taking up to a larger extent this interesting industry. I have only seen two or three farmers who have tried to keep bees. One of these is Mr. Stevenson, of Nelson. Probably the principal reason of this disregard is the old one that people here are only after the big things. In many families, however, there is much help not needed in the fields that should be able to find profit-



You can buy the material in a 75c. jack-knife for five cents or less, and make your own knife—but you don't. Think about it when some one asks you to buy a machine to make your own fence "cheap."

THE PAGE WIRE FENCE CO., Walkerville, Ont., or their Northwest agents, THE RATHBUN CO., Winnipeg, can sell you ready-made farm fencing at from 45 to 65 cents per rod. It is the very best, too. Circulars.

able and very entertaining occupation in looking after a few swarms of bees. Mr. Bedford claims that the honey of this country is of better quality, and that the season here is more favorable than in the east. I have come across a number of men this spring who have returned from Ontario with a small consignment of honey, and which they have had no difficulty in disposing of to their neighbors at 15 cents per lb. There would, no doubt, be a local demand for all that any average farmer could produce. The study of these small points is one of the essentials to that peculiar quality known as thrift.

Many of the people of this province have severe notions along the line of utilitarianism. They believe in growing grain, raising stock or dairying, but regard almost with contempt anyone who stoops to such trifles as gardening, tree-planting or flower-growing. I was talking to a farmer who believed in flowers and backed his ideas up by expending the small time necessary to fix up a fine bed or two of blushing beauties. He said that sometimes other farmers stopped and asked him what he was growing "them things" for—what use he made of them. Some men can find "sermons in stones," but others keep their perceptive faculties so sadly uncultivated that they can see no beauty even in the choicest gems of nature.

One of the best evidences which can be had of the substantial progress of the farmers of Manitoba is the feeling of contentment which is so evident on every hand. Almost no matter what part of the province one visits this same feeling is to be found. In some of the older countries the average man takes a sort of morbid satisfaction in telling about his "hard times," something like the man who is anxious to show you his sore toe. In this province it is the reverse—almost every farmer is anxious to prove to you that he raises more bushels of wheat to the acre than any of his neighbors and lives in the garden township. I have talked lately to a good many who have returned from the recent excursions to Ontario, and the universal verdict seems to be that they would not live even in that banner province again after having breathed the air of the west.

There are a very great many horses being brought into Neepawa this spring. So far, I understand, there have been about six or more carloads brought from different directions and by different men, and none have long been wanting a sale. There must be a great many men who do not raise their own horseflesh.

The other day I came across a man who was repairing his grain bags by pasting on the patches. He explained that he had allowed his bags to get out of repair, and he did not feel that they were worth going to great trouble with, yet he found he could get a good deal of wear and satisfaction out of them by applying patches with first-class paste. When kept dry, they would wear and stick for about a couple of years. Good scheme for bachelors.

Somebody has said, "Hitch your wagon to a star." It is likely he meant his advice for farmers and farmers' wives the same as for other people, but they do not all follow it just the same. It is almost painful sometimes to note the lack of ambition one meets with in some persons. Plenty of people have told me that if they can manage to get three meals a day and keep out of debt they are satisfied. They do not feel at all restless when they see their neighbors getting ahead of them.

The other day I was talking to a farmer's wife about some of the improved methods of dairying. "Oh," she said, "it doesn't matter much to me. We do not keep many cows; I make the butter myself, and we always manage to get it off our hands some way or other."

There is one kind of stock that this province has its share of, and that is dogs. If we go into any of the smaller towns we find that nearly every householder has one. If we go into the country we find that many of the farmers have two or three. I was at a farmer's place recently, where there were no less than eleven kept. At many places we find them keeping an old dog for old times' sake, and raising one or two pups—just to see how they will turn out. In a great many cases the old dog spoils the young one. I believe that no man should get a dog unless he is sure he will need him. It is a bad plan to take a pup off a neighbor's hands just because he does not know what to do with him.

In many sections where I have been the past few months I have found some of the farmers complaining because the stock buyers have been so careless of buying Holstein grade steers. I have found a few men who have raised quite a number of this breed, probably because they have seen them recommended somewhere for something, or, more likely still, because some neighbor happened to own a bull of that species. There is no doubt that for many dairy purposes the Holstein cow is specially fitted, but when a farmer begins to raise a steer for beef, it is no advantage that he belongs to a good milking strain. I believe that the discrimination practised by the buyers in some localities I have visited against black cattle has been at least partly a whim and a humbug, but this is very poor consolation to the farmer who has had to take a reduced price for his stock. Their experience only goes to prove that it pays a farmer well to study the fine points of his business.

The Farmers' Institute at Oak Lake closed a series of very successful winter meetings on the 26th March. After some routine business, the plowing match committee asked for a grant to the prize fund, and was answered with \$25 being voted for that purpose. Mr. T. Speers was down for a paper on "The Best Methods of Seeding," but gave an address instead, and covered a much wider field than the paper called for, taking up the preparation of the soil, and also the harvesting and threshing of the crops. A discussion followed, and the meeting closed with a vote of thanks to Mr. Speers. As the busy season is now at hand, it was decided that no more meetings be held until the annual meeting, which takes place at the end of May.

Killarney will hold a summer fair on June 28 and 29.

The American National Provisioner gives the following record of the pack of 50,000 hogs, summer packed:—Sides, 28.41 per cent; shoulders, 10.22 per cent; hams, 11.85 per cent; lard, 17.52; grease, 0.56 per cent; rough meats, 2.39 per cent; total, 70.95 per cent. This was higher than the usual run. In another test the net yield was 69.50 per cent of gross weight. From gross to dressed weight the hogs shrank 18.84 per cent, and were a regular run averaging 234 lbs.

TO CURE A COLD IN ONE DAY,

Take Laxative Bromo-Quinine Tablets. All Druggists refund the money if it fails to cure. 25c. [2250]

THE most beautiful colored picture of all wild fur bearing animals of our country (46), with photo engraving of their skins. Nothing like them in the world. Worth \$1.00; sent postpaid for 6 red stamps. Market report and much valuable information sent free.

Northwestern Hide and Fur Co.,
MINNEAPOLIS, MINN.

NORTHERN PACIFIC RAILWAY TIME TABLE.

MAIN LINE.

Arr.	Att.		Winnipeg	Lv.	Lv.
11 00a	1 30p	...	Morris	1 05p	9 30p
7 55	12 01a	...	Emerson	2 32	12 01
5 15	11 09	...	Pembina	3 23	2 45
4 15	10 55	...	Grand Forks	3 37	4 15
10 20p	7 30	...	Winnipeg Junc	7 05	7 05a
1 15	4 05	...	Duluth	10 45	10 30p
	7 30	...	Minneapolis	8 00a	
	8 30	...	St. Paul	6 40	
	8 00	...	Chicago	7 15	
	10 30	...		9 35	

MORRIS-BRANDON BRANCH.

Mon., Wed., Fri.		Tues., Thur., Sat.
10 30 am	D. Winnipeg	A 4 00 am
12 15 pm	D. Morris	A 2 20
1 18 Roland	1 23
1 36 Rosebank	1 07
1 50 Miami	12 53
2 25 Altamont	12 21
2 43 Somerset	12 03
3 40 Greenway	11 10 am
3 55 Baldur	10 56
4 19 Belmont	10 35
4 37 Hilton	10 17
5 00 Wawanesa	9 55
5 23 Rounthwaite	9 34
6 00 pm	A. Brandon	D 9 00 am

Taking effect Tuesday, Dec. 7th. Direct connection at Morris with train No. 103, westbound, and train No. 104 eastbound.

PORTAGE LA PRAIRIE BRANCH.

Lv.		Arr.
4.45 p.m. Winnipeg	12.35 p.m.
7.30 p.m. Portage la Prairie	9.30 a.m.

C. S. FEE, Gen. Pass. Agt., St. Paul. H. SWINFORD, Gen. Agt., Winnipeg.

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PATENTS.

If you have any business before the U.S. Patent Office I will be glad to take the matter in hand for you, assuring you that I have every facility for securing allowance of applications in the quickest possible time consistent with good work. Send a drawing or photo together with description of your idea for opinion as to patentability.

BENJ. F. FUNK,

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Hand Separators.

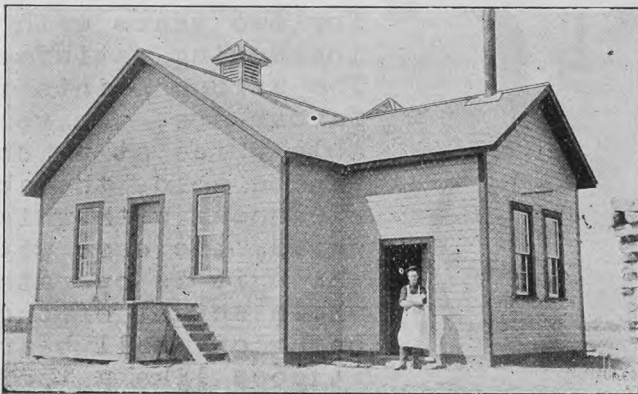
Now that the creamery season is about to commence, it might not be out of place to write a few words to the readers of The Nor'-West Farmer, setting forth some of the many advantages to be derived from the use of hand separators.

It must be borne in mind that the writer is in no way connected with the manufacture or sale of separators more than any other dairyman. It is not, however, altogether from unselfish motives that he now writes; for it must be apparent to all who will give the matter a little thought, that whoever may influence for better or worse any member of the community will affect every member; and that together we must rise or fall. If this thought was more constantly kept in view by farmers, our progress as a class might be even greater than it has been of late years.

It may be safely asserted that most of those who engage in dairying are in that

much loss is sustained through imperfect separation of the cream.

But it is not only by more perfect skimming that separators pay. Their use is a factor in improving the quality of the butter. This is a very important consideration, especially when the output of the creamery is sold in England. John Bull is wealthy, and, like most wealthy gentlemen, he wants the best he can get, and is willing to pay liberally for what tickles his palate. This fact is emphasized by letters which our dairy commissioner received from the parties in England who bought Canadian butter last summer. The principal improvement they suggest is in the quality. The quotations in old country papers for creamery butter showed that last summer Canadian generally took second or third place, coming next to Danish and Swedish. Why was this? Chiefly, I think, because the quality was not the very best. With cold storage in the creamery and all the way to England, the butter has not much chance to deteriorate after it is made, so we may safely look to the lack of quality nearer home, even at our own doors. One advantage I claim for separators is that they will help to improve the purity of the cream, and consequently the quality of the butter. The principal changes taking place in milk and cream are due to the presence of microbes. The elimination of these will, therefore, tend to preserve the good qual-



Macdonald Creamery, Near Portage La Prairie.

particular branch of farming for the money they can make out of it; so the most potent argument in favor of the use of separators is that money will thereby be saved. This result will be brought about through several channels.

The first and most pronounced way in which separators save money is by taking more butter fat out of the milk. It is estimated by no less an authority than Prof. Robertson that a separator will pay for itself in three years in this way alone, and from what little experience I have had, I think he allows plenty of time. To emphasize this point, let me mention the following facts: Some time ago a creamery in this neighborhood tested with the Babcock milk tester samples of skimmed milk sent in for examination by some of the patrons. The samples of a few of our neighbors showed a loss in the skimmed milk of from one-seventh to one-tenth of the butter fat from deep-setting, while there was practically no loss whatever in the skimmed milk from the hand separator, merely a trace of butter fat being shown in the Babcock bottle. In some cases, such as in dairy schools and experimental dairies, almost as good returns can be obtained from the deep setting process of creaming as from separators; but in such cases the milk is placed under the most suitable conditions possible, and such conditions exist in exceedingly few private dairies, consequently, in the latter,

ity of the butter. The bowl of the separator revolves at such a high speed that the dirt and dust in the milk fly outwards and adhere to the inner surface of the bowl in the form of a thick scum. A large proportion of the microbes in the milk are to be found in this scum; so it naturally follows that there are fewer microbes remaining in the cream, and the chances of undesirable chemical changes taking place are considerably reduced.

Not only does the use of separators increase the quantity and improve the quality of the cream, but, other things being equal, the calves will be more thrifty where a separator is used than where old methods are still in vogue. From this the reader is by no means to infer that the skimmed milk from a separator is of higher feeding value than that from shallow pans or deep cans, for such could not possibly be the case, seeing that there is practically no fat in it; but where the separating is done immediately after milking time, the skimmed milk has the natural heat still in it, and is perfectly sweet, and hence more easily digested by the calf. There should always be added to the skimmed milk ration some substitute for the fat which has been taken away. Boiled linseed meal is excellent for this purpose, and although its preparation is somewhat more trouble than letting the calf do without, it will pay in the long run.

The labor of running hand separators

To make Good Butter



one must have good milk and this comes only from healthy cows. The blood must be kept clean and pure, and the digestion good to ensure this result. There is nothing so good for this

purpose as **Dick's Blood Purifier**. This preparation is specifically made for milch cows and possesses real merit and power to do what is claimed for it. Given regularly with good food it will convert a mere hide and bones structure into a profitable member of the herd.

50 Cents a Package.

LEEMING, MILES & CO.,
Agents, Montreal.

DICK & CO.,
Proprietors.

Antiseptic Spruce Fibreware

(Capacity 3 to 12 lbs.)

For packing lard, Butter, Mince Meat, Jellies, etc.

It prevents decay and rust
It is water-tight and air-tight
It is by far the cheapest package in existence

Send for Samples and Prices.

THE E. B. EDDY COMPANY, Limited.

TEES & PERSSE,

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YOU CAN'T DO WITHOUT IT

If you are going to furnish your home—our big Catalogue, containing over 300 illustrations—mailed free.

SCOTT FURNITURE CO.,

Wide Awake House,

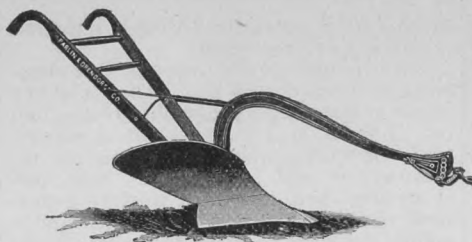
WINNIPEG.

is an argument against their use generally put forward by those who do not own separators. For the first day or two it is rather hard work; not so much in regard to the actual strength of muscle needed, but more from the constant pressure and tension required to produce and maintain that even and uniform speed which is essential to the best results. After a while, if one person always works the machine, the motion becomes mechanical, and is not at all fatiguing. In order that these remarks may not be so to the reader, I will draw them to a close. B. S. A.

Note.—B. S. A. is not in any way connected with the dairy supply business, and the soundness of his contentions is being very rapidly realized by farmers who are laying themselves out for butter-making. There is just now a quiet boom in the separator business. With the right cows and the right men there is still good promise for progressive dairying.

The Dairy Patron.

In a recent report from Toronto in Hoard's Dairyman, by J. W. Wheaton, of the meetings of the Western Dairy Association, he says: "There were over 300 makers present from all parts of Western Ontario, but the attendance of producers of the raw material was very small indeed. This is to be regretted. If there is any one factor in our co-operative dairy system, who needs instruction in the best methods of carrying on his share in the co-operative concern, it is the average patron of the cheese factory or creamery. While the cheese or butter maker is pretty well versed in all that pertains to his particular share in the work, the man who produces the milk is far from being at the top, both in regard to the quality of the milk he produces and the production of that milk at a profit. With the training provided by our dairy schools; with the help furnished him by the travelling instructors, in both butter and cheese, and with the education and enthusiasm received at the dairy conventions, any cheese or butter maker who cannot make a good product from a good quality of milk should not be in the business at all. With very few exceptions, we believe our makers are capable of turning out a good product if only the raw material is supplied them in good condition. The same cannot be said of the producer of milk. He has many things to learn in regard to the feeding, breeding and caring for cows in order to produce milk at a profit, and in caring for the milk before he is able to deliver it to the factory in a good condition suitable for making a fine quality of cheese or butter at all times. Therefore, it is quite evident that the chief work our dairy associations and dairy schools have before them to-day is the education of the average patron of our cheese and butter factories to better methods in conducting his share of the co-operative system. When this is well under way an improvement will soon be noticed in the quality of our dairy products. In this regard, therefore, the western meeting was very much lacking. The association, however, was not to blame, as every effort was made to induce the milk producers to attend. It does seem strange that there should be a three days' dairy meeting so near, and every dairyman within driving distance, at least, not present. We heard of a dairyman and a president of a cheese company, forsooth not six miles from London, who, on the big day of the convention, had a bee drawing stone, and not only did not attend himself, but prevented many of his neighbors from attending also."



Canton Scotch Clipper Plows

SECOND TO NONE.

If not sold in your town, write us for circulars.

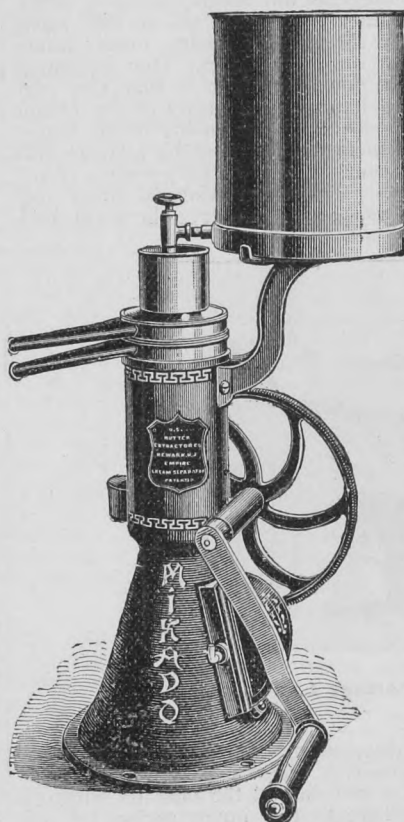
JOHNSTON & STEWART,

WHOLESALE AND RETAIL IMPLEMENT DEALERS

WINNIPEG, MAN.

CREAM SEPARATORS.

When buying why not get the best?



We wish to draw the attention of intending purchasers of Cream Separators to the Empire Mikado -- a cut of which appears herewith.

This separator has now been tested in Manitoba for two years with ever increasing satisfaction. The strong points in its favour are, the reasonable price at which it can be sold, the absolute cleanness with which it skims, the ease with which it is operated, the whole weight of the bowl being on 'ball bearings' it goes like a top, and a child of ten can work it.

When you consider that very often the women and children have to turn it, and that it is generally used twice a day, 365

days in the year, the latter point is quite an object.

It skims as clean at the end of the run as it does at the beginning. This is because the milk tubes are short and commodious. It is not necessary to use your hose to find out if the skimming bowl is clean, it is as open to view as an ordinary milk can, and as easily washed.

The Mikado is the smallest of the Empire machines. It has a capacity of 275 pounds in winter, or 300 pounds in summer per hour, and as compared with deep or shallow setting, a dairy of ten cows will save its cost in a year out of the extra cream received. We are establishing agencies as quickly as possible, in the meantime send for Catalogues and prices to

MANITOBA CREAM SEPARATOR & SUPPLY CO.,

175 McDermot Street,

WINNIPEG.

In what he says above, Mr. Wheaton, no mean authority on the business end of dairying, touches the very same sore spot referred to in the last issue of The Nor'-West Farmer. We may have the best cheese and butter makers in America, but if the milk supply is small and badly handled, the dairy industry is doomed so far as Western Canada is concerned.

Manitoba's Dairy School.

The dairy school closed on the 24th of March, after a very successful session of three months. In the farm dairy course there were 15 pupils in attendance. In this course no examinations were held, as the course is intended for new beginners. The first of the professional course began on the 1st of February and ended on the 24th. The remaining days of February were occupied in examinations for that month. There were 22 students in attendance during the course.

SYSTEM OF TEACHING.

The subject of butter-making was divided into six sections, namely: Receiving milk, separating, setting cream, churning, working butter, and packing butter. The subject, milk testing, was divided into four sections, namely: Babcock test, oil test, lactometer and alkaline test. The subject of cheese-making was divided into five sections, namely: Receiving milk, making cheese, pressing cheese, curing cheese, and milk testing. The management of boilers and engines, in relation to creameries, was carried on under the one subject. Each student was required to take up practical work in some one of the different subjects named above, and stand a daily examination in the subject assigned to him or her for the day. The final examinations for February began on the 24th of that month. Out of the 22 students attending, 15 tried for the examination. The following is a list of the successful candidates:—

	Milk Testing	Separat- ing	Setting Cream	Churn- ing	Packing Butter	Total Marks
J. R. Oastler	72	100	100	100	100	472
Helen Taylor	93	88	98	96	100	475
B. G. Bever- idge	73	88	90	90	100	441
F. D. Reid..	73	85	90	100	90	438
R. R. McLeod	88	84	100	65	85	422
J. S. Parker..	78	64	81	100	83	406
R. Moore ..	75	80	66	78	74	375
Wm. Scott ..	70	80	65	61	86	362
O. Ander- son	70	62	60	71	84	347
A. Grant ...	58	60	60	62	60	300

Out of the five students in the cheese department but two tried this month's examination. The final being condensed into two subjects monthly, viz.: Cheese-making and milk-testing. Those writing were:—

	Cheese making	Milk testing	Total
H. J. Burkholder, Win- nipeg	89	70	159
Annie Ruth, Barnsley..	93	*	93

*Below 60 marks. Sixty per cent. of the total marks in the subjects is the minimum allowed to pass. Out of the 15 candidates, 10 passed on all subjects, having 60 per cent. or over. Two failed in milk-testing, and three failed altogether.

The March course opened on the 1st day of March with 25 students in attendance, 20 in the butter department and 5 in the cheese department, and closed on the 24th. Out of the 20 students in the butter department, 13 tried for the final ex-

amination for March, which were the finals for the winter. The following is a list of the successful ones:—

	Oil Test	Separat- ing.	Butter making.	Packing Butter	Milk Testing	Total Marks
R. M. Moore	88	97	82	97	95	459
J. R. Oastler	80	83	83	80	80	406
R. R. McLeod	77	67	77	83	72	376
L. A. Race..	69	75	65	85	71	365
F. D. Reid..	60	74	72	70	70	346
M. L. Martin	67	76	66	66	71	346
O. Anderson	69	62	76	71	64	342
B. G. Bever- idge	69	75	61	63	68	336
J. G. Mager	63	57	62	66	60	308
A. Grant ...	56	60	60	68	60	304



THE ALEXANDRA CREAM SEPARATOR.

Highest Prize ever offered for Cream Separators—
\$150—was awarded to the ALEXANDRA after
five days' test, in which the De Laval
was a competitor.

"MARRINGHURST, Man, March 7th, 1898.

R. A. LISTER & CO., L.D.

Gentlemen,—I bought one of your Separators last June and am well satisfied with it. Since buying I have seen and examined several others, and for compactness, easy running, better material, finish and simplicity yours is ahead of them all.

Would advise anyone who has eight or more cows to buy one of your Separators, as we have found by fair test that it will pay for itself easily.—Yours truly, WILLIAM M. WEBB."

SO SAY ALL USERS.

"THE MELOTTE," a large capacity machine for the ranch separates by hand 50 to 85 gallons per hour, leaving not more than one ounce of butter in 10 gallons of skim milk.

If you are interested in a Creamery, Cheese Factory or Farm Dairy, write us frequently and obtain the latest information on all Dairy matters.

R. A. LISTER & CO., LIMITED,

232 and 234 King Street, WINNIPEG.

(And 18 St. Maurice Street, Montreal.)

ENGINE AND BOILER

IN ONE BORE.

Anyone looking at this Engine and Boiler will notice that it is a piece of high-class machinery. The boiler made of strongest steel plate, is carefully rivetted along the base and around the door. It is provided with four large hand-holes (so useful with our loaded water) three try cocks and the very best of fittings.

The engine is of first-class workmanship. Everything connected with it being durable and much superior to most combined small engines and boilers made to sell cheap.

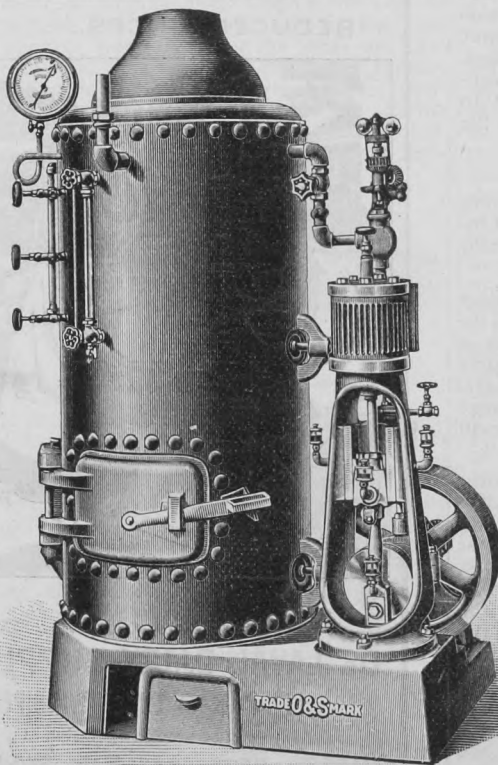
Send for catalogue and price list.

Send us also your butter and eggs.

S. M. BARRE,

240 King Street,

WINNIPEG.



in what they were not clear on, and giving them practice in public speaking as well. On the whole, the session was the most successful of any of the previous ones, and the students were hard-working and diligent. Nothing but harmony prevailed between the students and the instructors.

An American Cow Stable.

One of the special risks of the big two-story stock barns in this northwest is that some day, when least expected, a sportive zephyr may happen along and send the top story up in balloon shape, to be scattered as a wreck all over the prairie. More than one such barn has got wrecked, leaving the stone basement below unmoved. Hoard's Dairyman recently had a section of a barn, in which, without encroaching much on the fodder space, side bracing does a good deal to stiffen the structure. It is not necessary, perhaps, to have this bracing run all through. If one strong girder is put in every 10 feet or so, it would most likely be a sufficient safeguard against all risks short of a cyclone, especially if well anchored to the stone work. The ground plan, 100x35 feet, is also given. It is used to stable 50 cows, allowing 3 feet for each. It should have been at least 3 feet 4 inches, but the width might have been curtailed a few feet. The horse stable and silo are handy, and the barn built to this plan has already stood some severe gales without a tremble. The hay is shot down into the feed passages, and there are two driveways into the upper floor. (See illustrations, page 144, this issue.)

The Radiator Butter Maker.

This is the name of a Swedish invention that has been received with high favor by some well-known authorities in Europe, and had last year high honors from the national dairy shows in England, Germany, Sweden, France and Holland. It is made in sizes to work from 40 to 250 gallons of milk, and begins by Pasteurising the whole of the milk, which takes 10 minutes. One minute's time is claimed to be all that is needed to perfectly separate the butter from the milk. It is simple in construction and can be easily cleaned. The proprietors of this interesting invention propose to send over their agent to America this year with samples of the outfit.

The directors of the Birtle creamery have engaged Mr. Gad, a graduate of Ontario Agricultural College, as maker for the coming season.

At Liverpool, on March 26th, Canadian cheese was sold by auction at from 6½ to 7½c. per pound, that from the States a shade lower. This does not hold out a very brilliant prospect for cheese-makers, and the present chances are much more favorable for those who make butter in the early part of the season, at least.

"James," said a man, who stood mixing the milk and water, to his son, "d'ye see what I'm a-doin' of?" "Yes, father," replied James; "you're a-pouring water into the milk." "No, I'm not, James, I'm pouring milk into the water. So ef anybody axes you ef I put water into the milk you tell 'em no. Allers stick to the truth, James. Cheatin' is bad 'nough, but lyin' is wus."

Frank Wilson, the Canadian agent of the Dairy Supply Co., whose portrait was in the group of those in attendance at the Dairy Association meeting, which appeared in last month's issue of The Nor'-West

Farmer, was suddenly taken ill on the west-bound train and had to be taken to the hospital at Calgary, where he died in two days. Mr. Wilson has been long known to the dairy trade in Canada.

France is now sending over to England large quantities of milk prepared by a secret process, through which milk can be kept sweet for several days. It is understood the basis of the antiseptic is a wild plant found in the south of France. One man noticed that after cows had fed over the ground where this plant grew, the milk did not get sour. So far chemical analysis has been able to detect no ill effect following the use of the preparation.

An English farmer claims to have made a discovery which is valuable if his claim is well founded. As is generally known, it is difficult to select the calf at birth for its future usefulness as a milker, yet this farmer asserts that it can be done. He

states that on the inner side of the cheeks, near the corner of the mouth, may be observed the palps, which have different forms, according to whether the calf will be a good, medium or indifferent milker. If the palps are large, broad and flat they indicate that the calf, when matured, will give a large quantity of milk. If they are only round the milking qualities will be only ordinary. If pointed, the milk yield will be small. The palp is a jointed, sensitive organ, attached to the back or side of the lower jaw, and can be felt or distinguished by touch.

For Over Fifty Years

MRS. WINSLOW'S SOOTHING SYRUP has been used for over fifty years by millions of mothers for their children while teething, with perfect success. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for Diarrhoea. It will relieve the poor little sufferer immediately. Sold by Druggists in every part of the world. Twenty-five cents a bottle. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind.

The ORIGINAL Cream Separator. All Others are Imitations.

ALPHA DE LAVAL

Over
100,000
Machines
Sold.

CREAM

Over
100,000
Machines
Sold.

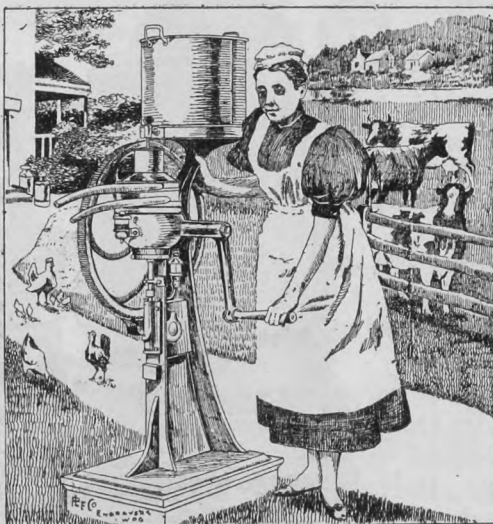
SEPARATORS.

Awarded FIRST PRIZE at EVERY Competition (but one) in Great Britain
Users say they pay for themselves in Six Months.

Every "Alpha-Laval" is Guaranteed to perfectly Separate the Quantity Stated, and requires Less Power to Work than any other Separator.

REDUCED PRICES.

INCREASED CAPACITY.



1. The "Alpha" makes one third more butter and of a higher quality than shallow pan or deep can system.

2. The "Alpha" De Laval gives the farmer 10% more butter than any other Separator.

3. The "Alpha" has nineteen more separating discs than any other Separator on the market.

4. The "Alpha" is the only Separator bought by the Manitoba Government, in use at the Dairy School.

5. The "Alpha" will pay for itself with twenty cows in one season.

6. The "Alpha" De Laval will turn one-third easier without noise than most of the Separators on the market.

7. Chicago Produce, of March 27th, 1897. It gives Separator statistics of 233 Wisconsin Creameries, showing the use of 386 Separators in the same, 270 of which are "Alpha", 20 "De Laval", 30 "Sharples", 30 "Danish Weston", 20 "Alexandra", 12 "Reid-Danish", 11 "U.S.", and 4 "Barber-Overflow."

Write for Separator Catalogue, No. 257, to the

DE LAVAL DAIRY SUPPLY CO.,

132 Princess Street, WINNIPEG.

Can be seen in operation at

CAMPBELL BROS., 538 Main St., WINNIPEG.

Principal Agencies:

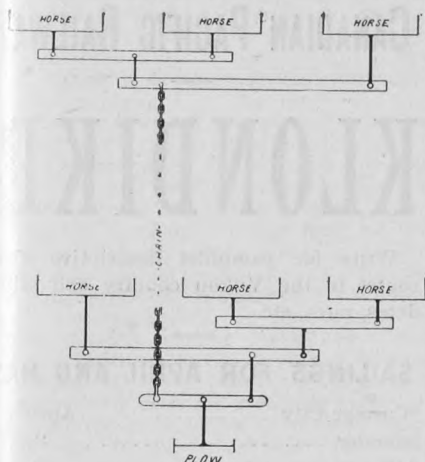
Great Britain, Ireland and British India, Victoria, South Australia, New South Wales and Queensland, New Zealand, South Africa, New York, Chicago, Stockholm, Sweden.



While our columns are always open for the discussion of any relevant subject, we do not necessarily endorse the opinions of all contributors. Correspondents will kindly write on one side of the sheet only and in every case give the name—not necessarily for publication, but as a guarantee of good faith. All correspondence will be subject to revision.

Six Horse Gang Plow.

C. W. Spungford, Morris, Man., writes: "Re-hitching six horses on a gang plow, the plan I spoke about I have not tried, but I think any intelligent farmer can make it work all right. I should be glad if any farmer tries it, he would write through The Farmer whether it works well or not. Take two three-horse whiffletrees (eveners will not do), put the front one the opposite way round to which they are always used; then take a chain and fasten it on to a double tree coupled



to the plow. Then take the other the right way and fasten it on to the other end of the double tree. Put the three best horses behind, so that you can give them an inch or more, if needed, on the double tree to bring the off horse in the furrow. I have not measured the distances. The front double tree will have to be a little longer than the back one. I think, if you measure the distance, you will find it will be possible to make it work all right.

Another Way.

Wm. H. Harris, Glenlyon, writes:—"In the February number of The Nor'-West Farmer appears an inquiry 'as to the best manner in which to hitch six horses to a breaking gang plow.' Thinking that it might benefit some other farmers as well, I thought I would write The Farmer and give them another plan, which I think will commend itself. Make an evener of oak plank, 2x6x5 ft. 4 in., bore three holes as follows: The first one two inches from the end; then measure off 20 inches for the second and 40 inches for the third. Attach evener to plow by centre hole; the short end of evener to be used with chain and pulley for four horses, the other team to be hitched to the long end with a long clevis. In hitching them this way there will be four horses abreast and two ahead. The above rig works well. It gives lots of room for each horse without compelling any of them to walk on plowed land and without side draft. By boring two more holes a very good five-horse evener can be made."

Wants a Tamworth.

W. N. B., Newdale, Man., writes:—"I want to buy a young Tamworth boar this spring; must be pure bred. If you know where I can get one, or any one who breeds them for sale, kindly advise in your next issue."

Answer—E. H. Carter, Portage la Prairie, and R. J. Wright, Suthwyn, were both prize-winners at the Winnipeg Industrial, 1897. We would advise writing them. If any of our readers know of any persons in the west having Tamworths for sale, we would thank them to let us know.

Government Dairying.

One of the "kickers" sends us the following. We would call Prof. Robertson's attention to his remarks and publish his reply in our next. Meantime we agree with this complaint that if the outside makers got most of the benefit of the government scheme, its supporters have very little to be thankful for.

"In your March issue there is a paragraph concerning the 'kickers' among the Whitewood creamery patrons, owing to the delay in receiving cheques, and I think Prof. Robertson is a trifle unfair in his remarks. During the winter we heard reports that we should clear 13, 14 and even 15 cents per lb. for the butter, which would make a neat cheque for \$50 still due to the man whose cream made 1,000 lbs. of butter, and it is certainly rather hard for a poor man to wait for that amount till March, but I guess those who were irritated at the delay did not say much more when they received cheques for one-half cent per lb. Now, we all know this is Mr. Robertson's scheme, and so far as we are concerned it is a failure. It is rather poor consolation to those who stood loyally by the creamery the whole season to be told that we made a splendid local market (ranging from 14 to 22 cents per lb.) for those who were wise enough to stay outside, while the poor patrons wait in hopes till March, and then clear 10½c. Most of us had separators to pay for at first, and with a dry season and all food scarce and dear, there is very little encouragement to milk the cows when beef is such a good price. If the suggestions made at Regina, i.e., Reduce the cost of making the butter and sell in the best markets, not forgetting the local, are carried out, we may hope for better results, but with such poor returns another year, it is altogether likely the whole scheme will be a failure, which would be unfortunate for the dairy industry in the Northwest."

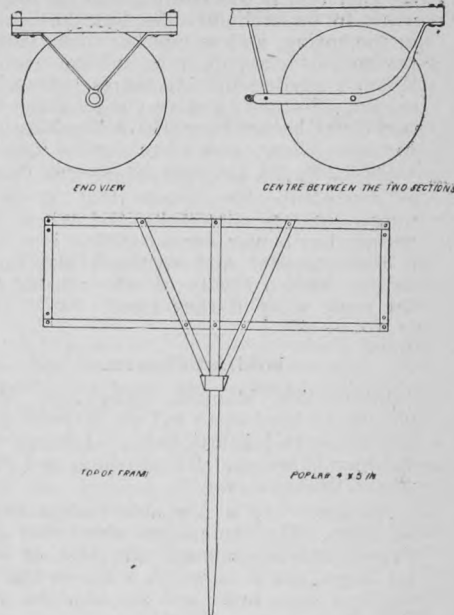
Legal Advice Required.

A.M.I., Melita:—"The Nor'-West Farmer does not undertake to furnish legal advice. Its province is farming, and that alone."

A Home Made Roller.

J. G. Kavanagh, Deloraine, writes:—"In reply to Jas. Lawley, of Brandon, re rolling, would say my experience for the proper time to roll fall plowing that is loose and liable to blow, is in the spring before sowing, or as soon as the frost is out. Harrow well and roll before sowing. But spring plowing should be rolled by all means as soon as possible after plowing. This closes and makes the loose ground more solid, retaining the moisture until the seed takes root. But if I rolled ground that was liable to blow after seeding, I would prefer waiting until the grain was up four or five inches: it would not be so liable to blow, does the grain more good by closing the earth around the roots, and gives more time to finish seeding before rolling. I don't know of any

Cambridge rollers in this part of the country, but think they would come rather expensive here. I built a very good roller this winter on a couple of mowing



machine wheels, covered with three-inch stuff, and tires. Frame is even with top of roller; centre iron is an old steel cut-bar, axle passing through the centre. The hind end has a quarter twist and receives the bolt through hind end of tongue. The draft is straight from axle, and is supported by a pair of braces on a bolt just behind the clevis, and spreading each way to connect with the bolts holding frame and wooden braces together, holding the point of draft in perfect position. The tongue and braces and frame are daped together one inch, half an inch out of each; so when bolted those braces hold the frame square and solid, with a platform for carrying stone, and a spring set bolted on to the tongue. Almost any farmer should be handy enough to make a roller like this. But if you can't, send me your order."

Stallions Going on the Route Too Early.

F.H.H. Lowe, Ninette, writes:—"I read with great interest an article by Dr. Ruthersford in your February number on 'Care of Brood Mares.' He gives some a dig in the ribs about breeding mares when they should not be bred, and advising the sale of the mares and getting geldings to put temptation out of the way. All this is very true, because I have been there myself, and know what it is to have work to do and a colt at foot. Either the work or the foal have to go, and it is generally the latter. Now, the purpose of this letter is to justify the farmer to a great extent, and I will try and tell how I think it is done. Stallions begin going on the route too early. We all know a mare will work better carrying a foal than nursing one, and if the stallion had not started early, all seeding would have been done and the mare turned loose for the summer. A groom knows it is to his advantage to get mares as early as possible, so as not to have a great rush on the stallion at once. So he sits down and begins to soft-soap the farmer about his fine horses, etc., and advises him to breed at once, as early colts do better. So they do if mares are not worked in seeding. The farmer is half convinced and breeds the mare that he did not intend to do as early, and the consequences are, a poor colt, if alive when born, or a mare which cannot suckle the colt and work, too. I have been there, and know how it feels. Then, there is another fault. The stallion is

taken off the route too early. He should be started later and be kept on as late as the last of August or first of September. Of course, the owner of the stallion will say that that is too late for him, as he has work to do at home. So has the farmer in the spring, and as one has to be inconvenienced, let it be the stallion owner. When I advised turning mares loose after seeding, I understand that the farmer has two other horses to work in breaking and summer fallow, which are not in foal."

Note.—It is a long time since The Farmer started to demonstrate that it is a tough job to raise colts and wheat together, but ocular demonstration is a sure if costly teacher, and we thank Mr. Lowe for his letter. Plenty of others could tell the same story if they liked.

Wild Artichokes.

John Allen, Manitou, writes:—"Will you be so kind as to tell me in your next issue how to kill artichokes. I have tried summer fallow and fall plowing, and they are as thick as ever."

Answer.—Try a few able bodied swine on them. The Americans assert that cultivated artichokes make the best of feed for hogs, and it is worth while to stir up the land once more and see how the pigs like them.

Barn Plan.

M. M. E., Bru, writes:—"The answer to my enquiry has been of great use and interest to me. I think the plan sent in by Mr. Bell—the first on the page—the most practicable and convenient, and shall therefore make use of it. (See page 45, February issue.) Thanking you very much for your kindness in this matter."

French Weed.

B., Minnedosa, writes:—"I found a patch of French weed on a small piece of land among the barley, and I burnt about an acre of the grain in the shock. How will I treat said acre this spring? Does it grow from root as well as from the seed? I have never seen it on my farm except on this one piece."

Note.—B. is a wise man to look after this pest in time. Don't plow this land till the end of May. Perhaps there are plants of it now growing under the snow. Anyway harrow it the first day the frost is out of the surface an inch or so. Nearly all the seed will grow, and winter plants, if any, will be in flower in May. Plow the patch late in May, not very deep, and sow a crop of barley, rolling it after the harrow. The barley will grow much faster than the weeds and perhaps choke the most of them. But to make sure, take a stroll through your crop and hand-pull the weeds. If very bad, mow the crop for the pigs, and either let it stand to be eaten over by stock, if suitable, or plow and harrow as fallow to get as much more seed to grow as you can. If you are careful this year, you can get rid of it, but don't drive across it or your wheels and other appliances will carry the seed all round. Let us know how you succeed.

A Rousing Calf.

Some time ago J. J. Caswell threw out a challenge for some one to beat his calf, 106 lbs. at two days old. Robert Menary, on 28, 15, 3, a short way east of Arden, Man., says he has a bull calf now from a Shorthorn grade cow by a Polled Angus bull that was 110 lbs. at one day old, and had another last fall, the same grade, that went 120 lbs. It is common with him to have them 100 lbs. or over. The 110-lb. calf can now be seen on Mr. Menary's farm, Roseridge. We are pretty certain

such calves got justice before they saw the daylight. Will Mr. Menary favor us with particulars, say age of dam and size, how wintered and when she went dry. It is rare to have pure breeds, especially Shorthorns, drop as good calves as grade cows will, and the fatter the cow the smaller the calf, as a rule.

A Whopper.

Thomas Renwick, Miami, writes:—"In last month's issue of The Nor'-West Farmer I notice that a correspondent from Saskatchewan writes that he has a calf which weighed 106 lbs. at two days old. Perhaps it may interest your readers to know that Thomas Lawson, of Lintrathen, has a calf this season, which, at 9 days old, weighed 130 lbs., and at four weeks weighed 190 lbs. Next."

H. H. Diehl, Edwell, writes:—"Pork being a good price last fall, I sold all my pigs, and bought a fall pig in December 25th, brought it home in an ordinary 100-lb. flour bag, and it weighed 45 lbs. I killed it on March 25th, and it dressed 196 lbs. Fed oat chop for first 4 weeks, and barley chop for the remainder of the time (always dry). For drink I fed the slop from the house and what milk we could spare from one cow. I always warmed the drink. I consider this a fair gain for three months."

The Souris Creamery.

Mr. Dickie, M.P.P., writes The Farmer:—"In your editorial, 'Perils of Factory Dairying,' in the March number of The Farmer, you have referred to the Souris creamery in a way that scarcely does justice either to the creamery or to the promoters. Although we did not make any money out of our venture last year, we had no desire to attract public attention to that fact particularly; nor I may say did the members send a delegate to the convention to look up pointers for next year's operations, as you have stated. I attended the convention upon the request of the Manitoba Dairy Association, conveyed to me in a letter from the Secretary, who stated that it was the wish of the directors to have present at the convention representatives from creameries throughout the province, who might be able to give figures and details of the work done and the general result of the year's business in their respective creameries. I thought it a reasonable request, and replied at once, promising to be present, if possible, and to furnish all the information I could. I was not delegated by the shareholders or the directors of the Souris creamery to attend the convention, but acceded to a request directed to me personally.

I am, I confess, one of the people who think your introductory paragraph rather a coarse caricature, as you surmised some might. The difficulties in the way of the successful creameries cannot be overcome by sharply criticizing or by ridiculing the efforts of men who aim to promote the creamery business in their locality by exchanging their cash for creamery shares, or by scolding the men who keep cows but do not patronize the creameries. The creamery institution must be put upon a business basis before we can expect for it the permanent support of cream producers, and the men who aim to put the creamery business with which they are connected on a good footing ought not to be taken to task very sharply if they do not make a success of it the first season.

After voluntarily making a candid statement of the facts of our experience at Souris, and admitting a lack of success, which did not surprise ourselves at all, I confess that I was a little taken back to

Thin in flesh? Perhaps it's natural.

If perfectly well, this is probably the case.

But many are suffering from frequent colds, nervous debility, pallor, and a hundred aches and pains, simply because they are not fleshy enough.

Scott's Emulsion of Cod-liver Oil with Hypophosphites strengthens the digestion, gives new force to the nerves, and makes rich, red blood. It is a food in itself.

50c. and \$1.00, all druggists.

SCOTT & BOWNE. Chemists, Toronto.

CANADIAN PACIFIC RAILWAY.

KLONDIKE.

Write for pamphlet descriptive of the routes to the Yukon country and sailing dates, rates, etc.

SAILINGS FOR APRIL AND MAY.

*Cottage City	April	25
Islander	"	26
Alki	"	26
Thistle	"	28
Victorian	"	29
Australian	"	29
Pakshan	May	3

*Cottage City sails for Wrangel, Juneau and Sitka only.

All agents can ticket through, at rates which will include meals and berths on steamer.

Apply to nearest C.P.R. agent, or address

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of all kinds, Pine and Cedar Shingles,
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SEVERAL GOOD FARMS

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for sale at reasonable rates.

PAINLESS CHILDBIRTH.
Sealed information free.
J. H. DYE, M. D., Buffalo, N. Y.

see our case disposed of in your article in this blunt conclusion: "The first blunder in this particular failure was made by the prime movers, who, to help the district, started the business with shares of which the farmers took not one. It is not at all to be wondered at that the members of this unfortunate combine sent in a delegate to look up pointers for their next year's operations." We have not yet come to look upon our attempt as a failure. By the operation of our creamery last year the home-made article realized for the producer, who marketed at Souris, from 2 to 5¢ per lb. more than could otherwise have been realized for it. Our merchants assist this positively, and I do not know that anyone disputes it. This was not in the interests of the creamery, but it certainly brought to the district a benefit far outweighing the loss made by the creamery promoters—a loss trifling in itself, and not the subject of much complaint on the part of those chiefly interested.

I may say that our creamery looks forward this season to a more general support from the districts adjacent to our town, to lower charges to the patrons for making, and to a balance sheet in the fall which will show that the earnings of the creamery will have been sufficient to cover the expense of operating, together with rent and interest on the money invested. This is all we ask, and we expect to be able to realize it. If not, we will pocket our loss with good grace, and look competently forward to the time, not very far distant, when all cow owners will come to appreciate the fact that in order to obtain a decent price for butter at any time of year it will be absolutely necessary to manufacture an exportable product, and to export it at least during four or five months in every year. This, if nothing else, will ultimately compel the successful operation of creameries. Whether they are established by farmers, or by other citizens, cannot make any difference if business methods prevail in their management. Few people, perhaps, who pay out their cash for creamery shares do so with the expectation of making much profit out of the investment. Most will be very content if the enterprise does no more than give them immunity from the sight, smell and flavor of the unfortunate product with which we are all more or less reluctantly familiar.

You have called the Souris Creamery Association "a combine." Mr. Editor, why this opprobrious epithet? Have we deserved it? We have neither monopolized the cream nor the markets. If we did take more than our share of experience in one season, we were found willing to pass it along for the benefit of other butter people at the recent convention. In our opinion we are the farthest thing removed from a combine that exists anywhere.

Note.—The editorial in last month's Farmer was not, as Mr. Dickie appears to think, written for the purpose of criticising the Souris or any other creamery. It would have been written and its accuracy would have been uncontrovertible had the Souris creamery never existed. We only quoted Mr. Dickie because he furnished a clear-cut illustration of the style of procedure which has led to corresponding results elsewhere. It is not of the slightest consequence to the discussion that Mr. Dickie was not a "delegate." He spoke for the local factory, and does not dispute the accuracy of our quotations from his report. And if the directors of the creamery are satisfied with their last year's success it is not our place to discourage them. The object of the article was two-fold. First, To point out, as has repeatedly been done before in these columns, the imprudence of starting creameries with far too few cows, most of them very poor producers at best. Second, The necessity

of greater loyalty to their engagements, verbal or otherwise, on the part of so-called patrons of creameries. We are not aware that it is unfair to call a company a "combine," and did not use the word with that intention. If we were wrong in assuming that Mr. Dickie was looking for pointers, as well as supplying information, we beg his pardon. The Farmer never misses a chance of picking up pointers at all such meetings, and we naturally, if mistakenly, assumed that Mr. Dickie was there on the same errand. The word "combine" is not necessarily an opprobrious term, and was not so intended by us. Combination or association might have been more fit. The Farmer is sincerely desirous for the progressive prosperity of advanced dairying, and deems it its duty, as a farmer's paper, to point out, without unnecessary verbiage, what will and what will not forward that cause. Souris was referred to solely because it appeared to us a handy specimen of the defects we referred to. If they can double their patronage in the coming season and reduce their expenss on-third, so as to put their enterprise on a better paying basis, we shall be only too glad to record the fact.

Live Stock Impounded.

St. Clements, Ward No. 1—One horse, color roan, aged; one mare, color bay, aged; one colt, color bay, 1 year old. Thomas L. Bird.

Carberry—One pony mare, color bay, aged, four white feet, white stripe on face, about 14½ hands high, about 800 pounds weight. William Ranson.

Russell, Pound on Section 23, Tp. 19, Range 28—One mare, color bay, coming 3 years old, white spot on forehead, left side of nose white. V. T. Williams.

East Selkirk — One pony mare, color black, about 2 years old, white stripe on face and right hind foot white, a little white on right front foot. J. D. Hedley.

Municipality of Russell, Pound on Section 3, 21, 18—One heifer, color light red, horns slightly turned up, white splash on belly, 2 years old; one heifer (muley), color dark red, 2 years old. Alf. Clee.

Section 6, Tp. 6, Range 3 East—One mare, in foal, color buckskin, marked with a heart on the right shoulder, and branded L B on the right hip, about 8 years old; one mare, color buckskin, in foal, branded with a heart on the right shoulder, white hind feet, white face, and one white eye, about 6 years old. Charles Barthelette, St. Agathe.

A Catalogue Worth Having.

The Scott Furniture Co., of Winnipeg, has just issued an exhaustive furniture catalogue that will take its place in completeness with anything issued in the Dominion. The most striking feature of this catalogue, which is full of interest and instruction to the furniture buyer from beginning to end, is the large number of illustrations contained in it. There is page after page of clearly printed cuts, every one of them separate styles of articles of up-to-date furniture. In this way the catalogue is a complete guide to the furniture buyer; there is no guess or supposition work about the purchase, as one sees an exact reproduction of every article, with the price clearly and plainly stated. No matter what part of the home it is desired to furnish, the hall, the library, the drawing room, dining room, kitchen, bedrooms or any part of the house, the necessary articles of furniture will all be found, described, illustrated and priced. An im-

portant feature of the catalogue is the publication in it of the freight rates on all lines of railway throughout Manitoba and the Northwest and the freight classification of all articles of furniture. In this way the resident of any section of the entire west can tell exactly what any and every article of furniture will cost laid down at his nearest railway station, as the weights of all lines of furniture are distinctly stated. Altogether the catalogue is most complete in every particular, and will be sent to any one free for the asking.

Russell spring show will be held on April 22. Ribbons only will be awarded as prizes—no money going.

A fox terrier bitch on the farm of Mr. T. Sheldrake, Virden, has adopted three motherless pigs, and is doing her best to bring them up.

The sale record of the Northwest Land Co. may be taken as a very fair criterion of the demand for land in the districts where its land lies. This company sells at moderate prices and on convenient terms. Here is the record for the last four years:—

	Acres sold.	Amount.	Average price pr. acre.
1894	3,305.00	\$ 16,553.00	\$5 00
1895	8,034.00	42,299.00	5 26
1896	20,927.00	118,022.00	5 69
1897	38,934.07	210,549.99	5 40



Men who work on, in, or by the water, or are exposed to the cold or damp are prone to suffer from that most painful disease, rheumatism. This is a disease of the blood and can only be permanently cured by going back to first principles and driving out all impurities, and filling the arteries with a new, rich, red, healthy life-stream.

This is the reason why Dr. Pierce's Golden Medical Discovery is an unfailing cure for that disease. It is the greatest of all blood medicines. It creates a keen and hearty appetite. It cures all disorders of the digestion and makes the assimilation of the life-giving elements of the food perfect. It invigorates the liver and tones the nerves. It is the greatest of all known blood-makers and blood-purifiers. It builds firm, healthy flesh, but does not make corpulent people more corpulent. Unlike cod liver oil, it does not make flabby flesh, but tears down the unhealthy tissues that constitute corpulency, carries off and excretes them, and replaces them with the solid, muscular tissues of health. It drives all impurities, disease germs and acids from the blood. In Dr. Pierce's Common Sense Medical Adviser many sufferers from rheumatism, whose cases were considered hopeless, tell the story of their recovery under this wonderful medicine. Their names, addresses and photographs are given by their own request, and anyone who wishes to do so may write them. Good druggists sell the "Golden Medical Discovery."

When a dealer urges some substitute he's thinking of the larger profit he'll make—not of your welfare.

"I suffered from rheumatism in my left shoulder and elbow," writes Rev. Wilson Williams, of Trinity Station, Morgan Co., Ala. "Dr. Pierce's Golden Medical Discovery completely cured me at a cost of only four dollars."

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THE NOR'-WEST FARMER

ESTABLISHED 1882.

The only Agricultural Paper printed in Canada between Lake Superior and the Pacific Coast.

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It is the intention of the publishers of this paper to admit into their columns none but reliable advertisers, and we believe that all the advertisements in this paper are from such parties. If subscribers find any of them to be otherwise, we will esteem it a favour if they will advise us, and we will at any time give our personal attention to any complaints which we receive. Always mention this paper when answering advertisements, as advertisers often advertise different things in several papers.

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Either on business or editorial matters, should be addressed simply "THE NOR'-WEST FARMER, Winnipeg," and not to any individual by name.

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When you pay your subscription, watch the name label on the next two issues which you receive. On the first issue following payment, it might not give the correct date—the type-setting machine may make an error and the proof not be corrected before mailing day. But if the date is not correct on the second issue please notify us by postal card.

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WINNIPEG, APRIL, 1898.



CITY MEN AND FARMING INDUSTRIES.

Within the last month there have been two things happen, in which farmers, as well as the first movers, have an interest. Some city gentlemen called on Premier Greenway to protest against the sale into the States of so many of our young cattle, and a sort of circular has been sent out, drawing attention to this movement as detrimental to the farming interests of this country. It so happens that owing to the destruction of part of the hay crop and the partial failure of the oat crop, all kinds of feed have jumped up to famine prices. Last spring in the city of Winnipeg good shorts could be bought at half the price now paid there for very ordinary hay, and had the farmers gone to these city counsellors for advice, a good many of them would have been brought to the verge of bankruptcy. As it is, after a long winter's struggle, many of those who did hold their stock over the winter now find themselves a good deal out of pocket. With the 20,000 gone over the line also on our hands, the country would have been in a very bad mess indeed, and the farmers may be congratulated on having found so good a market for stock, the holding of

which would have brought them to their wits end.

The other point is in reference to the wolf bounty. Mainly through the influence of the city members, the wolf bounty will be cut down to a minimum, perhaps altogether abolished. The same class of men who see danger to the country in selling at a very good price stock we cannot afford to keep, can see no danger in allowing the already abundant stock of wolves to be multiplied without let or hindrance, if thereby a few hundred dollars of taxation is to be spared to Winnipeg and Brandon. On the other hand, they will turn round and point out what an advantage it would be to us, (not forgetting themselves) if we had a good woolen factory started in each of those cities. Everybody knows that mainly owing to the increase of wolves, partly also to the increase of city dogs and their poaching owners, sheep are fast being driven out of the country. The wise men of Gotham, who want factories but won't pay a trifle to protect the sheep to grow the wool, are to be congratulated on their statesmanlike insight, but we fear their zeal for the prosperity of the country must develop a wider range of vision before it is properly appreciated by their country cousins.

On this question Premier Greenway seems to us to have taken pretty sound ground in the reply he made to this city deputation. The farmers ought to be the best judges of what is good for them, and have a right to sell to the highest bidder. The proper men to discuss such questions are the men who have stock to sell. If they, in their institutes and similar gatherings, will undertake to discuss this subject as it affects their own interests, that is the place to deal with the question. So long as we must buy at a high price corn from the States to feed beef that brings a good deal less here than the same quality of beef brings at Chicago, after being fed at half the cost, so long will the farmer of Manitoba be justified in selling his stockers to the foreign feeder.

Whatever may be the feelings of the real estate men round Winnipeg, many a farmer feels to-day that the American demand was a perfect Godsend, for which we cannot be too thankful. Men in high places have sold to the Southerners, and plain poor folks are not very wicked who have followed their example.

BIG SHOWS AND LITTLE ONES.

The other day, when the subject of agricultural shows was before the local legislature, Premier Greenway was reported as having expressed a wish that the shows of the province could be cut down to less than a dozen in all. Some reasons might perhaps be brought forward for this view of the case, but the big show system is not entirely free from objectionable features either. It seems pretty much agreed on by all directors of these big fairs that without "attractions" they could not be made to pay. Amusements, as well as practical instruction, may be quite appropriate to all such gatherings, but the question soon comes up, "Where shall we draw the line?" Sky rockets, ground and lofty tumbling, painted clowns and dancing girls are in our humble judgment a good deal further apart from farming than a race course and trotting sulkies, and the man who gives a transient glance at the cream of our stock and crops, will get more harm than good at any fair, big or little. Oatmeal is an ideal food for brain and muscle, but when we see a puny boy or weedy looking man, plastering a tea-cupful or less of well-cooked oatmeal with sugar and cream before he can begin to

eat it, we very naturally wonder how many hours a day he will be able to follow a harrow. The worst thing about these side-shows and trapeze attractions is that they betoken and do a good deal to foster perverted and sickly appetites that have very little stomach for real farming.

People accustomed with the blare and fandango of big fairs are liable to feel dull when only the produce and stock of a limited area, say two or three municipalities at most, are placed in the show tent, and round the enclosure, but if we ourselves are all right, there is a lot of good to be seen and learned and enjoyed at the little country show. One of the surest ways to maintain the usefulness of these shows is to try and eliminate as much as possible the prize-lifting element. The Crystal City association has found it to work splendidly not to allow any big exhibitor to draw out of its funds more than thrice the amount of its annual subscription to the show fund. Objection might be taken to this plan, but we mention it here because we think it well that the little country show should "get a show" as well as its big brother, and would like to hear from a number of our readers some expression, however short, of their opinion on the whole question.

ELEVATOR MONOPOLY.

At the time this sheet goes to press nothing definite has been decided on at Ottawa as to the "improved railway facilities" called for by the unanimous vote of the local legislature, as regards the loading of wheat. The buyers appear equally unanimous in agreeing that the farmer shall have no obstructions put in his way, if he desires to load from his own wagon, instead of through the elevator. But this only shoves the block a little further along. It will take close on 100 days to send out all that the country has to sell in a fairly prosperous season, and there are only 60 to 70 days from the time the crop begins to move here till navigation closes, and the next difficulty will be how shall the railroad companies divide the available cars, so as to give equal justice to all shippers? It is manifest that if the dealers cannot get a proportionate share of the cars available, they must reckon on that in offering for the crop on sale. Elevator privileges are like all other privileges, liable to abuse, and have been abused in enough cases to rouse a very strong feeling among the great bulk of the producers. We trust that the efforts of the Dominion parliament in the way of regulating this traffic will be followed by a measure that will reduce friction to a minimum. War between producer and dealer cannot bring much profit to any side, and there is enough good sense in the community to keep us clear of undue irritation.

AN OLD COUNTRY RAILROAD SCHEME.

The great North of Scotland Railway Co. runs through a district in which are a great many small farms, the wholesome nursery ground from which good and reliable farm hands have emigrated to every corner of the globe. These farms send produce to Aberdeen as a centre, often in small quantities, and to still further encourage this kind of business, the railway company has issued a scale of charges, whose moderation is almost bewildering when contrasted with our own express charges. In this new departure they practically ignore distance as an element

How to Train a Collie.

By Rob Roy, Campbellville, Man.

The first thing necessary is, if possible, to get a well-bred Collie pup, and if you put a good price into one be sure that he comes of intelligent stock, as it is quite possible to find collies, as well as men, with less than a fair share of brains. Another quality that should be looked out for is a reasonable supply of courage. A set-tempered dog, if not petted and spoiled, may be perfectly satisfactory as a sheep dog, but more grit is necessary for cattle. It may not be possible for every one to secure a pure-bred collie, but here and there through the country are to be found dogs with a large preponderance of collie blood, although not strictly pure-bred, which possess the collie instincts and intelligence. In fact, I know of several that have been trained so as to become first-class workers. It is no earthly use wasting time on badly bred stock. Having got your puppy and given him a name, something short and handy, the first thing is to get him accustomed to his master, and he should have only one master, at least while training lasts. Teach him his name and teach him to come to his master's heel and remain there when wanted. Don't abuse him and don't pet and fondle him. It is hard to say which is the worst. If you have children, don't allow them to make a plaything of the dog. If you want a dog to disobey and to take his tail between his legs and go home in the sulks when a harsh word is spoken to him, all you need to do is to make a pet of him. A collie that won't take a rattle with a stick or whatever comes handy as a chastisement for disobedience and go to work all the better for it has not got the right kind of temper. The training of a collie for cattle should not be begun too early, as the discouragement of a severe kick may have a bad effect. The trainer will, of course, be guided by the amount of grit and intelligence shown as to when to begin. A bitch, as a rule, will train much earlier than a dog. When he shows a disposition to work on the cattle the training may commence. When the pup has got into training it must be kept up right along; a day now and then won't do. There is a false idea abroad in this country that the way to train a pup is to put him with a trained dog and he will by imitation become a trained dog. Nothing will be accomplished in this way. The puppy will only run races with the old dog and worry and bark at him, paying no attention to any business view of the matter. In fact, only hindering and preventing the trained dog from doing his work. The first lesson the young dog should be taught when put to work is to circle round the animals to the opposite side of the herd from his trainer, running pretty close so as to drive in the stragglers. Then he should be encouraged to come at them so as to bring them to his master. At first, it will be necessary for the trainer to go pretty close to the herd, but as the dog learns his lesson the distance can be increased so that he may be sent a considerable distance to round up the cattle and bring them in. In sending him around the herd any phrase may be used that suits the trainer, accompanied by a wave of the hand in that direction, and that phrase should be used only for that particular work. If the dog should run in on the herd before he has got far enough around, stop him by calling his name sharply. Then start him on again with a command to keep out wide and an outward wave of the hand. When he has got to the other side

of the herd encourage him to come at them. If he leaves the rear of the herd for his master command him to go back behind, accompanying the order with a suitable gesture. Take particular pains to teach him this part of his work and the rest will be comparatively easy. To train the dog to drive, not much is needed, except a wave of the hand to indicate in what direction his services are needed. Should any animals make a break, the dog, already trained to go beyond and fetch, will, whenever he gets the command to go by, head off the animals that are attempting to break away and bring them back to the herd. If the cattle straggle loosely to right or left, give him a command to go forward, accompanied by a wave of the hand in the direction required. When he gets forward to the stragglers, give him the word to come at them, and he will drive them into the bunch. With the right sort of a dog and patient training you may have help that is simply invaluable. As the dog becomes accustomed to his work, either word or signal will be sufficient. Out of hearing the signal will suffice. When within hearing, but out of sight, the word will be sufficient.

Frank Leslie's for April.

Bicyclists everywhere will be interested in the article on the League of American Wheelmen which appears in the April number of Frank Leslie's Poupplar Monthly. It is a well-written account of this great organization from its beginning in 1880, told by A. Cressy Morrison, who, until the recent election, was the first vice-president of the League. There are more than twenty very good illustrations, including portraits of groups of wheelmen. In the same number Senator James H. Kyle has an article on "The Statesmen of Jackson's Period," being the sixth paper in this magazine's series on Andrew Jackson. This also is profusely illustrated. The Island of Martinique is interestingly described by Julius G. Tucker, U. S. Consul at that place. William Stevens Perry, Bishop of Iowa, contributes an elaborately illustrated article on the Episcopal Church in this country. The great interest displayed in the Alaska gold fields makes particularly timely and attractive the paper on "Gold Mining in British Columbia," which treats the subject from a geological as well as practical standpoint. Other interesting articles are "The Coastguard of England," "At the Foot of the Pyrenees," by Mary de Morgan, and "April Fool's Day." There are some excellent short stories, a striking instalment of the new serial, "Marie Tremaine," an illustrated Easter poem, some fiction for young people, and a talk about new books. — Frank Leslie's Publishing House, New York.

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SETTLERS INFORMATION

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Homestead Regulations
Land Offices and Agents,
Mining Regulations,
Cattle Quarantine, Duty Etc.
Time Tables, S.S. Sailings,
Fares, Distances, Etc.

(Officially Compiled.)

TOVEL'S POCKET DIRECTORY.

AT BOOKSTORES 5c ON TRAINS.

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Grain Grading.

The Portage la Prairie farmers institute held a meeting on March 17th, at which the question of grain grading was very fully discussed. On motion of C. Braithwaite, seconded by W. Fulton, a resolution was passed asking for permanent grain standards, of which very full samples should be placed on all the leading wheat markets of Great Britain, for equal representation on the grain boards of producers and purchasers, and for restrictions on handling grain in transit or in store, so as to minimize the chances of lowering the quality but retaining the same nominal grades. While disclaiming any intention of class legislation, they do call for such regulations and restrictions as shall secure equal justice for producers and dealers. To this intent they have prepared and forwarded for presentation to the parliament at Ottawa, through Dr. Ruth-

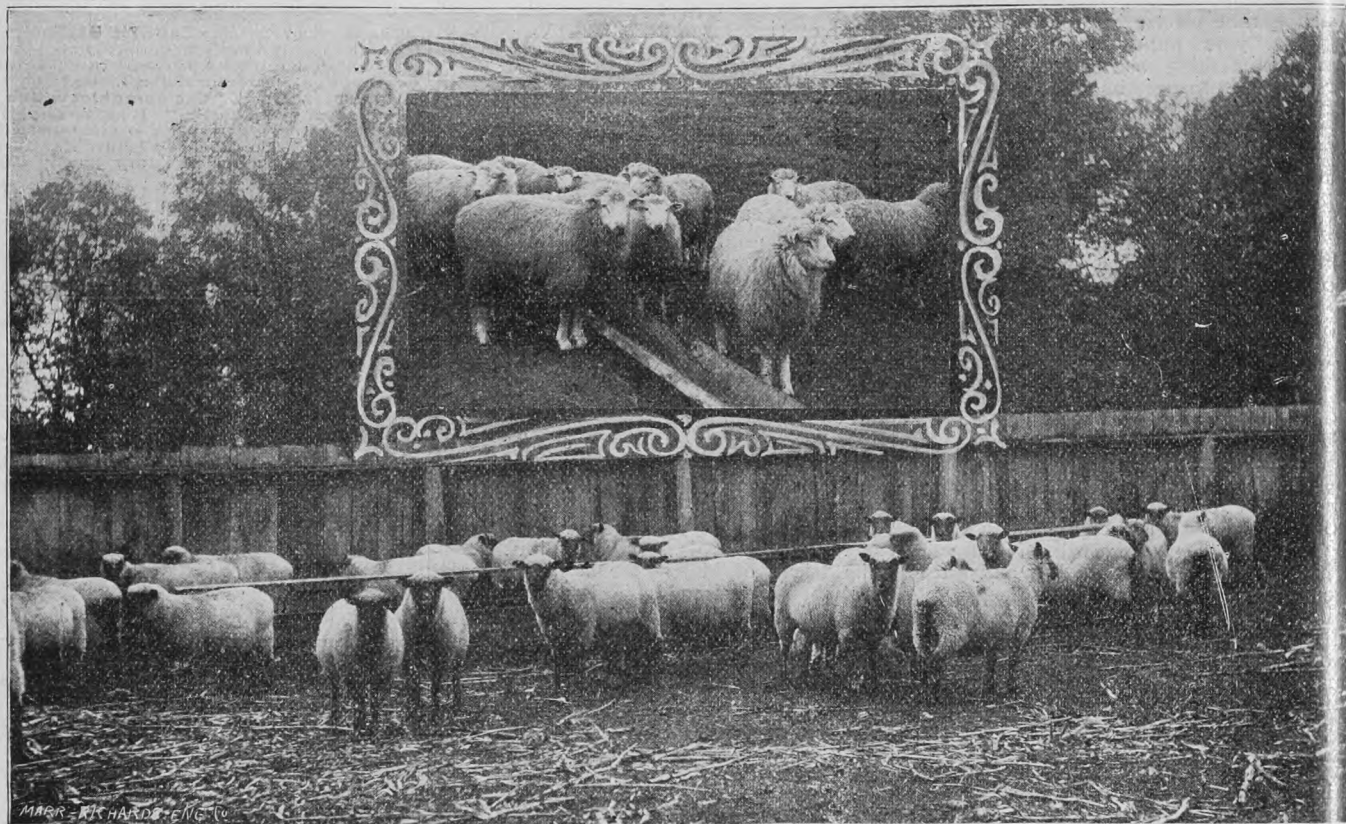
Manitoba and the Northwest, and that a board be appointed, composed of six traders, millers and dealers and practical farmers, with the president of the Winnipeg Grain Exchange as chairman. The two inspectors to be present to suggest and give expert opinions, but not allowed to vote. All representatives of the board to be domiciled and have large interests west of Lake Superior, and the classification agreed upon by such board shall be the interpretation of the standard act and the act itself made permanent, and govern all inspection until the same is repealed. And this institute would recommend a classification on the following basis for permanent standards:

"Manitoba extra hard shall be clean and sound, and consist of 90 per cent. of hard Red Fyfe, and weigh not less than 61½ lbs. per bushel.

"Manitoba No. 1 hard shall be clean, 95 per cent. sound, and consist of 75 per cent. hard Red Fyfe, and weigh not less

"All grains below these standard grades shall be classified according to their merit by a committee appointed by the Lieutenant-Governor-in-Council, such committee to be composed of six practical men, one-half of which shall be producers; such classification to stand only for current season for which the same is made, unless the Lieutenant-Governor-in-Council by proclamation shall otherwise determine."

In publishing thus fully the demands of the Portage farmers, as expressed by their local institute, The Farmer would be glad to hear from a business point of view the opinions of such farmers as John S. Thomson, Waskada, and James Elder, Virden, who have given special attention to the subject, as to the suitability of the grades formulated at Portage. It would be a strong point in favor of any such standard if it could be shown that there is practical unanimity among the farmers themselves on the scale of merit here set up.



The lower view shows a flock of Pure Shropshire Down Ewes on the Farm of Albert Smith, Eau Claire, Wis. The upper view shows a group of Cotswold Ram Lambs, on the farm of D. H. Williams, Neillsville, Wis.

erford, M. P., seven resolutions on grading and handling, the 6th reading as follows:—

"This institute would, therefore, recommend that the federal government enact: 1st. That all grains at terminal or public elevators grade out the same as they grade in; 2nd, that all shipping elevators at provincial points, when receiving grain for shipping or storing, must set aside a fair sample of the same with owner's name, day of receiving, and, if stored, the number of bin, these to be kept for reference until the grain is loaded on the car, and any elevator owner detected and convicted of tampering with any grain received for shipping or storing shall be liable to a heavy penalty."

Resolution 7 is as follows:—

"And this institute would further recommend that the order-in-council dated Sept. 26, 1896, classifying grain, be cancelled, and that during the coming summer and before the next crop begins to move, samples of all grain be collected in

than 60 lbs. per bushel.

"Manitoba No. 2 hard shall be reasonably clean and 90 per cent. sound, and consist of 65 per cent. hard Red Fyfe, and weigh not less than 58½ lbs. per bushel.

"Manitoba No. 1 Northern shall be clean, 90 per cent. sound, and consist of 55 per cent. hard Red Fyfe, and weigh not less than 60 lbs. per bushel.

"No scoured wheat allowed in these first five grades.

"Manitoba No. 3 hard, fairly clean, 75 per cent. sound, and consist of 60 per cent. hard Red Fyfe wheat, and weigh not less than 57 lbs. per bushel.

"Manitoba No. 2 Northern shall be fairly clean, 80 per cent. sound and consist of 50 per cent. hard Red Fyfe wheat and weigh not less than 58 lbs. per bushel.

"Manitoba No. 2 White Fyfe wheat shall be fairly clean, 80 per cent. sound and consist of not less than 65 per cent. hard Fyfe wheat and weigh not less than 58 lbs. per bushel.

Wheat in Australasia.

The year book of New Zealand shows that the wheat crop of that colony, with an average yield of 23 bushels an acre, totalled up to less than 6,000,000 bushels, mostly grown in the southern island. Their climate and soil are all right, but at recent prices it was simply impossible to make wheat-growing pay. There are 40 flouring mills now in the colony, 40 fewer than six years ago.

A writer to the Adelaide Observer says: "The official statistics of the crop returns in New South Wales have been published, and a trustworthy private estimate of the position in Victoria has been made. In the mother colony the area reaped was 938,521 acres, which produced 9,745,377 bushels—an average of 10.4 bushels per acre, as compared with 10.2 bushels last year. Victoria is supposed to have produced 7,437,000 bushels from 1,580,000 acres, which gives an average of 4.70 bush-

els per acre. Queensland is expected to provide 1,000,000 bushels, and Western Australia and Tasmania 1,500,000 bushels between them. This gives a total production of about 23½ million bushels. The food requirements of the six colonies for 1898 are put down at 21,000,000 bushels, whilst about 3,500,000 will need to be set aside for seed. These figures indicate (seeing the deficit in South Australia) that Australia is likely to be an importer of grain before the end of the year."

Bread for the Hungry.

In the remoter parts of Sweden the poor people make and bake their rye bread twice a year, and store the loaves away so that eventually they are as hard as bricks. Further north still, bread is made from barley and oats. In Lapland, oats, with the inner bark of the pine, are used. The

The Scrub Bull Once More.

A farmer in Kildonan parish, who keeps a pure bred bull of his own, complains that he must either run the risk of having his young stock made half worthless from scrubs running loose or be at perpetual feud with his neighbors, who are too shortsighted and too mean to keep anything better than can be got from the nearest dairy as a \$5 calf. He has realized the immense advantage of breeding his cows to pure bred stock and bought a sire of assured good breeding years ago, the stock from which, when he can keep it pure, is worth twice as much as that from the runt out on the prairie that is always at hand, though never wanted. When this vile mongrel does get in his work, the calf from the very best cow must go to the butcher at scrub price, and as the very man who at the time is appointed poundkeeper may be the owner of the bull, the chances for the law be-

necessary law. In the interest of progressive breeding generally The Farmer has already repeatedly cursed with bell, book and candle the scrub of every denomination as one of the worst enemies of this country, but, like the Jackdaw of Rheims, the offender is never a hair the worse. After such men as this correspondent have got angry enough to balance the offence by shooting one or two of the worst offenders, there may yet be a chance of abolishing, or at least abating, the nuisance.

In the Territories the officers of the Northwestern Dairy Association, ably assisted by Mr. Mackay, of the experimental farm, Indian Head, have been doing yeoman service in popularizing the dairy movement in the country districts. A good many of them felt a little sore, and with a fair show of reason, at the arrangement made last spring by Prof. Robert-



In the lower portion of our view is shown the dairy herd of Geo. Martin, Hudson, Wis. Our upper view shows a flock of Pure Bred Shropshire Ewes on the farm of J. E. Glover, Hudson, Wis.

two together, well-ground and mixed, are made into large flat cakes, cooked in a pan over the fire. In dreary Kamchatka, pine or birch bark by itself, well macerated, pounded and baked, frequently constitutes the whole of the native bread food. The Iclander scrapes the "Iceland moss" off the rocks and grinds it into fine flour, which serves both for bread and puddings. In some parts of Siberia, China and other Eastern countries, a fairly palatable bread is made from buckwheat. In parts of Italy chestnuts are cooked, ground into meal and used for making bread. Durra, a variety of millet, is much used in the countries of India, Egypt, Arabia and Asia Minor for making bread. Rice bread is a staple food of the Chinese, Japanese and a large portion of the inhabitants of India. In Persia the bread is made from rice, flour and milk.

Mention Nor'-West Farmer when writing.

ing enforced are very small indeed. This complainant naturally feels the difficulties of his position, and thinks that some independent official should be put on to enforce the law against males running at large and so avoiding the unpleasantness sure to follow the lodging of a complaint, however reasonable. As was well said only the other day, regarding another style of law-breaking, "There is no use in putting any law on the statute book, and then leaving it to enforce itself." Laws, however excellent, are mere waste paper unless some proper machinery exists for their enforcement, in fact, every such statute allowed to be inoperative tends to bring all law and order into contempt. The Farmer sympathizes very strongly with this progressive intruder into a retrograde district, and will always be ready to publish such complaints in the hope that enough public feeling will be at length aroused to call more loudly for a more decided enforcement of a most

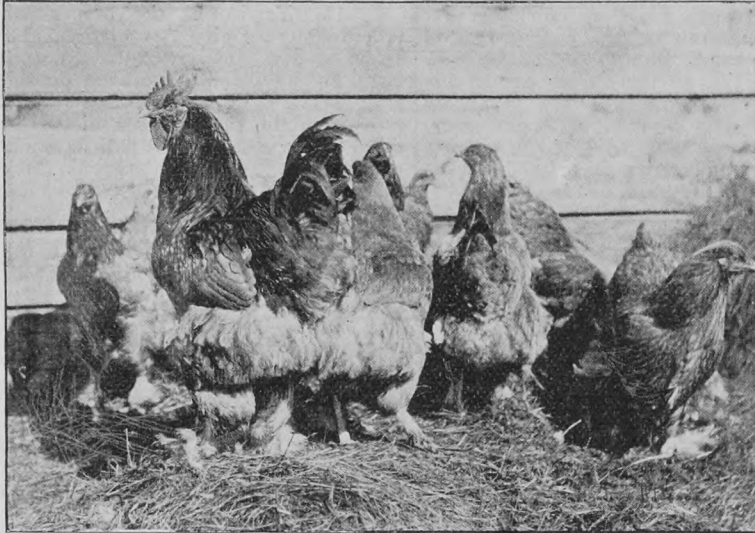
son with the English commission agents for a regular supply of western butter all through the season. The glut of supply from both Europe and Australia toward the end of the season was considerably aggravated by the disastrous engineering strike, so bringing down the price there much below what it would have brought on the Pacific coast markets. But this is a contingency to which all business transactions are liable, and what is done cannot be relieved by getting cranky over it and withdrawing from the business this season. The trip made by the gentlemen referred to has done much to restore harmony and good feeling, and we hope this year's work will turn out more pleasant for all parties, because financially more profitable.

The directors of the Winnipeg Industrial have decided to enlarge the swine pens to double their present capacity. A much-needed improvement.



A Queer Little Hen.

There was once a little brown hen
A dear little, queer little hen,



Pen of Buff Cochins.

Recently imported, and owned by F. D. Blakely, Winnipeg. See ad. in other column.

Her work was to lay
Just one egg every day ;
And she did it ; this good little hen.
She'd fly up a tree, and right then,
Seated high on a branch, this queer hen,
Her eggs she would lay,
Her one every day,
This good little, queer little hen.
'Twas a strange thing to do, I must say,
Lay an egg from a tree every day.
And what good was the egg ?
Just tell that, I beg—
That fell from a tree in that way ?
But some people do things just as queer,
I know it, I've seen it, my dear.
They have a good thought,
But it just comes to naught ;
From the wrong place they drop it, my dear.
There's a lesson for you and for me
From the hen that laid eggs in the tree.
If we do a right thing,
If a good thought we bring,
Let's not choose a wrong place, you and me.

—Independent.

How to Set a Hen.

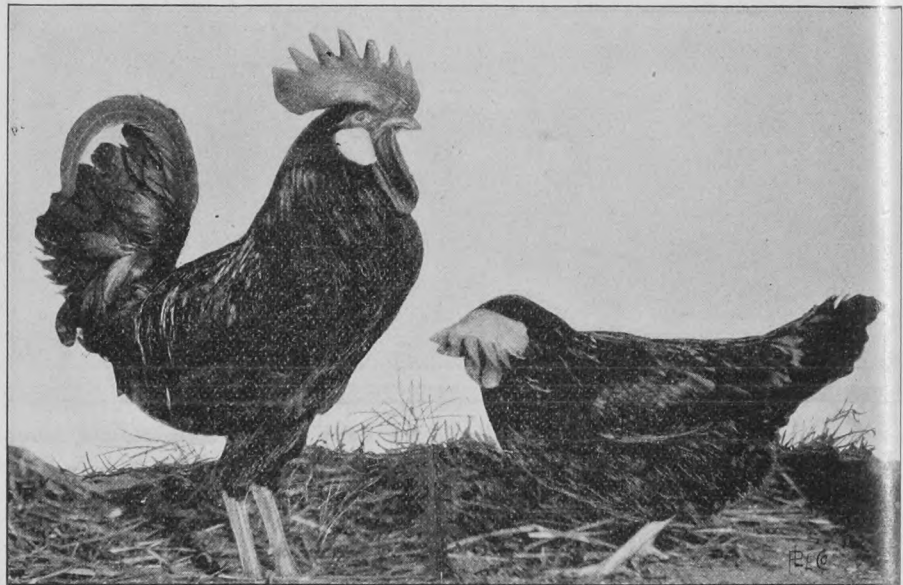
Perhaps some of the readers of this article will say that it is quite unnecessary to write anything upon this subject, but I submit it is important, and many mistakes are made by those who do not stop to consider the matter.

When a hen steals her nest, it almost invariably follows that she brings home a far greater number of chickens than if she were set in a poultry house and a nest made for it. For this reason, I prefer to conform to nature as much as possible. I would recommend that some sods be cut in the fall before the ground is frozen,

and stored away for spring use. When you have a broody hen, take a box and put one of these sods into the bottom of it. If it is very dry I would moisten it. Put the grass side down. On top of this place some fine hay ; put a couple of china eggs (which should be first warmed) into the nest and then set your hen upon them. Leave her there for twenty-four hours, and if she is comfortable and has the appearance of being willing to remain for the three weeks, I would give her the eggs. Before setting her, however, I would recommend that she be thoroughly dusted with insect powder and again about

will be quiet and docile the next day. She is not hungry and consequently has no call to get off the nest and become unruly. Have the nest box thirteen inches on the inside and five inches deep. Fill it with straw, turning the loose ends under all around, and then take four bunches as large as one's fist and raising the straw place the bunches in the corners. This will give it a founding shape and hold the eggs together. Put in a few china eggs and place them where she is accustomed to lay, and at night move to the place where you intend her to set. Let her set on the china eggs a day or so, until she is used to her new location ; put eggs under her only at night. Two or more hens can be set in the same place, but care must be taken to have the nests at least eight inches apart, as, otherwise, one will try to roll some of the eggs into her own nest, and will break them. In setting several hens together care must be taken to have the nests in the same relative position—as, all on one side of the room, not one nest in a corner. If the nests are too far apart, one hen will try to get on a nest already occupied, and then there will be trouble. Always test the eggs after the sixth day and you will get an extra hen to set. Give them plenty of food and never fail to give them plenty of grit. Lack of grit gives them indigestion. Never set over fifteen eggs under one hen at once, for she is very apt to break them getting on and off the nest. Have plenty of fresh water ready for the hen when she comes off.

In last month's issue of The Farmer a mistake was made in putting the title under the half-tone illustration of Black Minorcas. It should have read "Black Minorcas, owned by A. M. Robertson, Keewatin, Ont." instead of as it was printed.



Black Minorcas, owned by A. M. Robertson, Keewatin, Ont.

two weeks before the hatch is due. During the process of incubation, I would feed her upon whole corn, and be sure that plenty of water is within reach, otherwise if she gets very thirsty, she might eat the eggs in order to quench her thirst.—Thos. Duff, in Farming.

In an American exchange, J. A. Road-ruck says :—On the day you want to set your hen, take her off the nest about 6 p. m., and feed her all she will eat, and then let her go back again. You can move her that night to a place by herself, and the chances are nine out of ten she

We are indeed sorry that this mistake occurred, and we reproduce in this issue the engraving with the proper title.

John Kitson, Macdonald, writes :—“I see by your report of the Manitoba poultry show that I was missed from the show. I was down east on a trip, and did not get back in time, but attended the Ontario show at London, also the Owen Sound poultry show. Have imported some good stock for heading my yards this year, among them being a 92½ White Wyandotte cock. My stock is in fine shape, and I have more good birds than I ever had.”

How Hens Fill Their Crops.

To watch the hens on a range, they seem to be eating during the whole day, and the supposition is that they eat more than they should. It is true that they can secure more than enough on a range when everything is growing, but they also expend a great deal of energy in so doing. On the range the hens get a little at a time, perhaps a worm here, a seed there, or some delicacy in the shape of green food somewhere else, but they are ever moving from place to place, and are as busy as possible. It is a different matter when they are fed by the owner. He throws down the food and they fill their crops full at once. Having done so, they are satisfied and "wax and grow fat." There is a lesson to learn from the natural mode of feeding by the hens. Give them their food in small quantities, if they must be fed, and not all at once. When the crop is overloaded, too much food is passed into the gizzard to be triturated, and the digestive organs are overtaxed, but when the food is eaten gradually and slowly, digestion is also gradual and the system is invigorated by the exercise of securing the food. The study of how best to feed will assist in avoiding mistakes and enable one to feed at the lowest cost. —Progressive Poultry Journal.

Little Things of Poultry Keeping.

A little draught in the hen house often causes roup.
A little manure in the hen house, added to a little of the day before, induces lice.
A little exposure to the rain chills the chicks.
A little sloppy feed brings on bowel troubles.
A little attention to the whole flock will keep them in condition.
A little sneeze is a warning of a cold—and a little attention at this time will check a tendency towards roup.
A little time spent each morning will keep the hen house in a sanitary condition.
A little work will repair a small leak in the roof and save the expense of re-shingling.
A little insect powder in the nests will keep away the vermin.
A little grit always in the trough will prevent indigestion.
A little cleaning will keep the scum out of the drinking fountain.
A little grain scattered among the litter on the floor will keep the hens busy.
So we could keep on enumerating the many little things that need attention in poultry farming to make the business successful. It is being mindful of the small things that prevents sickness, and makes poultry profitable.

Some Points About Eggs.

A fresh egg will sink in water. It is not always safe to judge an egg by its appearance. It may be apparently fresh, yet if it absorbs enough air to permit it to float even a little above the bottom of the dish it may not be perfectly fresh. The white of a perfectly fresh egg cannot be beaten to a froth as easily as the white of an egg that is a day or two old, and if the egg is very cold the beating of the white will be accomplished more easily. It is considered an advantage by some when the shell of an egg will peel off if the egg had been hard-boiled. Such eggs are not fresh, as the contents of a fresh egg adhere closely to the shell and must be removed. When held to a strong light

a fresh egg is clear, and if shaken in the hand no jarring or motion of the contents must be felt. Hundreds of persons who use eggs daily are unable to judge of their quality, and, indeed, it is difficult to determine the freshness of an egg by any one, but the above may be of use to some who are inexperienced.

"It is impossible in some sections of the country to get perfectly fresh eggs during the winter season," says Mrs. S. T. Rorer in the November Ladies' Home Journal. "To guard against this in summer time, when they are cheap, pack them in lime-water, and they will keep in good condition for three months. Pour one gallon of boiling water over a pound of lime; when settled and cold pour it carefully over the eggs which you have packed. Small ends down, in a stone jar, and stand in a cool, dark place. Eggs may also be packed in salt; anything that will close the pores of the shell and prevent evaporation will preserve eggs."

Thos. Reid, 293 Lizzie St., Winnipeg, whose ad. appears in this issue, claims to be the oldest breeder of Black Minorcas in the city of Winnipeg. He procured his first stock in 1888.

BUFF COCHINS.

Having imported the best trio ever brought to Manitoba and mated with best previous strain here, will sell EGGS from above birds at \$2.00 per setting. Also pure-bred Brown Leghorns, Eggs \$1.50 per setting.

F. D. BLAKELY,
285 Ellen St., Winnipeg.

Reid's Poultry Yards.

My **BLACK MINORCAS** at the Poultry Show in February won as many prizes as all competitors combined and silver cup for best display. **GOLDEN WYANDOTTES**—1st pen, 2nd cock. Stock for sale. EGGS \$2.50 per setting of 13.

THOS. REID, 293 Lizzie St., Winnipeg.

Oak Grove Poultry Yards,

LOUISE BRIDGE P.O., WINNIPEG, MAN.

With my M. B. Turkeys I won the Silver Cup at Manitoba Poultry Show, 1897, for best display of Turkeys; also 3 firsts, 1 third and medal for heaviest Turkey at Winnipeg Industrial, 1897; for best display of Turkeys at Manitoba Poultry Show, 1898, I won the Silver Cup.

I am breeding four colonies of Toulouse Geese. Pen No. 1 (a pair of which weighs 52 lbs. in breeding condition, if fat, would weigh over 60) mated with 1st prize Gander at Winnipeg Industrial, 1897; No. 2, mated with 2nd prize Gander at Winnipeg Industrial, 1897; No. 3, mated with 1st prize young Gander at Winnipeg Industrial, 1897; No. 4, mated with 1st prize young Gander at Montreal and Cornwall Shows, 1898. I am breeding one colony of Embden Geese, a pair of which took 1st prize at Manitoba Poultry Shows, 1897 and 1898. Not being confined to space, I raise them by the hundred.

Write for price list and circulars for fowls and eggs and all kinds of poultry supplies.

Address—CHAS. MIDWINTER,
Louise Bridge P.O., Winnipeg.

Maw's Poultry Farm

Eggs for hatching from my Mammoth Bronze Turkeys, Toulouse Geese, Barred Plymouth Rocks, Silver Laced Wyandottes, White Wyandottes, Light Brahmas, White Leghorns, Pekin and Rouen Ducks. I have a grand flock of Mammoth Bronze Turkeys, headed by yearling gobbler "Mammoth," winner of 1st and Hutchings' Special for best gobbler in exhibition; mated with 1st prize Hen, 24 lbs., 1st pullet, 22 lbs., and other hens selected for size and bone. Eggs from this fine flock of acclimatized birds will produce healthy stock and free from disease. My Toulouse Geese are extra large, and won silver medal at Industrial, 1896. My Rocks are pure Hero strain, selected for high standard, size, and best egg strain. My Ducks won 1st, Pekin old; 1st old, 1st young, Rouen, at February show.—Eggs at reasonable prices. Special figures given on large orders. Write for what you want, and I will do my best to give satisfaction. I have just issued a large descriptive catalogue, illustrated with photographs of my birds. I will mail it free on receipt of address.

M. MAW, Winnipeg.

H. A. CHADWICK,

ST. JAMES, MANITOBA.



Light Brahmas, Barred Plymouth Rocks, Black Langshans, Guinea Fowls, and Black African Bantams, Fowls for sale of each variety. My birds are too well-known as prize-winners to call forth further comment. Write for what you want. Telephone connection with Winnipeg. German Canaries for sale, good singers.

2170

Louise Bridge Poultry Yards

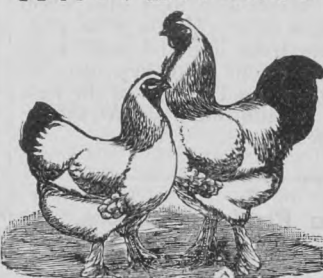
Secure another Sweeping Victory.

On S. and R. C. White Leghorns, White Wyandottes, & Black Spanish; winning at Manitoba Poultry Show, February; 1898, 16 First Prizes, 11 Seconds, 2 Thirds, 4 Silver Cups and Gold Medal, including Lieutenant-Governor's Challenge Cup and Gold Medal, won by my pen of White Wyandottes, score 188 1-12, the highest scoring pen on exhibition, followed up closely with my pen of White Leghorns, score 187 3/4. My breeding pens this season are as fine as can be found in America, containing all my prize winning stock. Egg orders booked now from these grand pens at \$2.00 per 13. A few choice birds for sale.

ADDRESS—

GEORGE WOOD, Louise Bridge P.O.,
Winnipeg, Man.

WINTER LAYERS.



Barred
Plymouth
Rocks
AND
Mammoth
Light
Brahmas.

My birds are mated by one of the best Poultry judges and are prize-winners at Eastern shows. EGGS, 13 for \$2.00; 26 for \$3.50.

E. R. COLLIER, P.O. Box 1411, Winnipeg, Man.

Lakeview Herds and Flocks.

My breeding yards of Barred P. Rocks, Light Brahmas, Rose C. Brown Leghorns, Black and Silver L. Wyandottes, Mammoth Bronze Turkeys and Pekin Ducks, are all imported and winners of 35 1st and 5 2nd prizes from 41 entries in 1897. A few choice B.P. Rock Cockerels and young Turkeys for sale. Orders booked for eggs. Poland China Swine, from imported parents, with pedigrees, at reasonable prices. Correspondence solicited.

J. J. MOIR, PROPRIETOR,
GLENDINNING, MAN.

2218



INCUBATING THERMOMETERS.

We handle the most improved and accurate ones in the market. Write for prices.

W. R. INMAN & CO.,
WINNIPEG.

2226

When writing advertisers, mention The Farmer

Unfertile Eggs.

There are many reasons why eggs hatch so poorly when from a pure-bred stock, one of the greatest being want of stamina in the flock from which the eggs came, caused by being kept too closely confined. As a rule it is best to procure eggs for hatching from fowls which have free range, which is a greater promoter of healthfulness, though there is no reason why eggs should not hatch well from fowls in confinement, if those fowls are given good care, plenty of food, and have good-sized yards to run in. Want of fertility may be due to running too many hens to a cock; about six hens of the Asiatics (Brahmas and Cochins), and from ten to twelve of the laying breeds (Leghorns, Hamburgs, etc.) to a cock being about the right number to secure good results, other things being equal.

Chicken Lice.

The first signs of lice are with the early setting hens. From their nests soon a whole house will be overrun with the pest. Chicks show the presence of lice very quickly, and lice are certain death to them if they are not protected. Have all nests moveable, and change the contents frequently. With sitting hens' nests be sure to have the nest clean and the box and surroundings whitewashed before she is placed. Whitewash and the dustbox are the surest preventives of lice. Put two or three coats of whitewash on every interior spot in the building; the lice harbor in the crevices of the rough sidings, and on the under side of the perches. Let the fowlhouse have a dustbox. Mix hot ashes with the dust occasionally to dry it. Do all this early in the year, before spring laying and sitting. Kerosene and lard when applied is a sure cure, but they are too often dangerous in their effects. A little castor oil on the head and under the wings of sitting hens is very effective. Don't keep a brood hen in a little coop without a dust willow. If you want your fowls to be free from lice you must keep their habitation clean. The best way to do that is by occasional change of the nest contents and a thorough whitewashing of the apartment.

How to Produce Layers.

In every lot of hens some will be better layers than others. Let us suppose we start with six Houdans—a cock and five hens. Probably out of these five two may lay thirty eggs per annum more than either of the others; their eggs should be noticed and only these set. By following this for a few years a very great increase in egg production may be attained. My attention was drawn to this subject by a friend having a Brahma pullet, which laid nearly three hundred eggs in one twelve-month, though valueless as a fancy bird, and the quality descended to several of her progeny, and I have since found other instances which prove conclusively that a vast improvement might easily be effected in nearly all our breeds were that careful selection of brood stocks made for this purpose which the fancier bestows on other objects. It is to be regretted more is not done in this way, and having more room than I had, I hope myself to make some experiments in this direction shortly. I will say now that I am perfectly certain the number of two hundred eggs per annum might be attained in a few years with perfect ease were the object

systematically sought; and I trust these few remarks may arouse a general attention to it among those who keep poultry for eggs only, and who can easily do all that is necessary without any knowledge whatever of fancy points, or any attempt to breed exhibition birds.—L. Wright, in Rural World.

Raising Turkeys.

The difficulty of raising turkeys is a serious drawback to the profits of the business, but the exercise of care will obviate the difficulty. At first, and for about six weeks, turkey chicks are very delicate, so much so that even a warm shower will finish them. If they can be kept alive for about two months they begin to assume a more robust character, and will soon become the very hardiest of poultry. The chicks, therefore, should be provided with shelter, and the shed which furnishes this would be all the better if it had a wooden floor. The best feed for the first week is hard-boiled eggs, mixed with minced dandelion. It is thought the dandelion serves to keep the bowels in order. At all events the young birds prefer dandelion to all other green food. At the end of the first week add gradually to the boiled eggs bread crumbs and barley meal, constantly lessening the amount of egg until at the end of three weeks it may be entirely discontinued. Now give boiled potatoes as a part of the food, and a small portion of some small grain may be added, in fact, making the food very much like that of other poultry. If fed in this way and kept dry, they will come along all right.

The Rural World mentions a well authenticated case of a hen 21½ years old still healthy. Last year she laid eggs and hatched ten chickens.

Advertise your breeding stock in The Nor'-West Farmer. It will pay you to give us your ad. Noah was the first man to advertise. He advertised the flood and it came off all right. The fellows who laughed got drowned, and it served them right. Ever since Noah's time the advertiser has been prospering, while the other fellow is being swallowed up in the flood of disaster.

It is very easy among a lot of fowls to decide which will be the best layers. It is always the hen that has red combs and that gets up the earliest, even in cold weather. When a hen is moping and dumpy she will not lay many eggs, and these she does lay, while they may be all right while fresh for eating, are worth little or nothing for setting. If the eggs or setting were always chosen from fowls that were themselves active and vigorous, the greatest possible improvement in the prolificacy of fowls would be made at no expense whatever.

Rover ducks are equal to the Pekins in size, lay as many eggs, are more beautiful, and grow rapidly, but no duckling will grow as fast as a Pekin duckling up to the age of twelve weeks, nor will any breed thrive as well without a pond as the Pekins. All breeds have some disadvantages as well as advantages. Pekins are white and clean, but a dirty plumage on a duckling that weighs five pounds when it is ten weeks old is better than an apparently cleaner plumage on a smaller one. Never mind the dirt, but try to get the most weight in the shortest space of time and at the lowest cost.

Li Hung Chang's commissariat carried with it around the world a supply of Chinese preserved eggs for the ambassador's

special use. The process of keeping them is very primitive and simple, yet very effective. First, the eggs are boiled hard; then, while they are hot, they are wrapped in soft clay, and packed away. They will keep for ever. These eggs are almost black, and the yolks are green. They chop them very fine, and decorate most of their viands with them, and they enter largely into all their sauces. The duck eggs are from the Pekin and Muscovy breeds. They are first boiled, then preserved in a paste of charcoal, which hardens about them. These duck eggs are opened, split in halves, and served in the shell, and are delicious.

Have no equal as a prompt and positive cure for sick headache, biliousness, constipation, pain in the side, and all liver troubles, Carter's Little Liver Pills. Try them.

The British Trade Journal has an illustrated diagram of the sources of Britain's bread supply during 1897, showing that while she grew 26.5 per cent. of wheat she imported 43.9 per cent. from the United States, 13.6 from Russia, 9.7 from other foreign countries, and only 6.3 from British colonies and possessions.

EGGS FOR HATCHING.

Barred Plymouth Rocks,
Buff Plymouth Rocks,
S. C. Brown Leghorns,
Black Langshans,
Silver Spangled Hamburgs.

ALL
PRIZE
WINNERS.

\$2.00 for 13, \$3.50 for 25. Stock for sale.

2255 JOHN TODD & CO.,
457 Henry Ave., WINNIPEG.

BLACK MINORCAS

J. DENNER & SON, 295 Fountain St., Winnipeg. Breeders of high-class Minorcas, will this season breed from two pens.

No. 1 Pen—headed by brother to the winner of New York Show, 1897, mated to pullets imported direct from Pitts, of England, winner at the Crystal Palace.

No. 2 Pen—Pitts' cockerel and Duff's and Roberts' hens. A limited number of Eggs for setting will be sold from these two pens. 2246

Smithfield Poultry Yards

At Winnipeg Industrial 1896 and 1897, I took 1st prize for Rose Comb Brown Leghorns, and in 1897 1st Prize for Pearl Guinea Fowls.

For Sale—R. C. B. Leghorns, \$1.50 each, male or female, Pearl Guinea Fowl, \$1.50 each, male or female. R. C. B. Leghorn Eggs, per setting, \$1.50.

Address—HUNTER SMITH,
2303 Smithfield Ave., BRANDON.

KEEWATIN POULTRY YARDS.

A. M. ROBERTSON, PROP.
Highest scoring birds at Winnipeg Poultry Show, 1898. Makes a specialty of BLACK MINORCAS. Correspondence solicited.

2217 A. M. ROBERTSON, KEEWATIN, ONT.

SHOEMAKER'S STOCK WINS!

In the hands of his customers it wins and keeps winning every prize in sight. Never Beaten! Always Victorious. We lead in quality and low prices. Largest and best stock. OUR POULTRY ANNUAL & ALMANAC for 1898 is a corker. 100 pages best paper. It tells all about everything in the poultry line. Is fully illustrated with finest engravings. It should be in every library. Price only 15c. Money refunded if not satisfactory. Address, C. C. SHOEMAKER, FREEPORT, ILL., U. S. A.

IT PAYS

To have an advertisement in the columns of The Nor'-West Farmer—that is, if you want to reach the farm homes of Western Canada.



Cultivation for Wheat.

By a Portage Farmer.

Experience teaches me that all land intended for wheat should be plowed as soon after harvest as possible, and thus give the soil time to settle down and pack together before it gets the winter's frost, after which there can be no packing until next spring. I find land that is frozen immediately after plowing is apt to be a very dry seed bed, especially if the land is light. I would especially draw attention to the early plowing of land that has had a previous crop of oats or barley. If plowed immediately after harvest, when the weather is warm and some moisture in the ground, this will give any grain that has been sown a chance to germinate and thus be killed by frost later on. On the other hand, if not plowed until late in the fall or next spring, foreign seeds will not grow until spring, and you will thus have a mixed crop, which is not a very desirable kind of mixed farming.

In the spring as soon as the land is fit to work on, I would start the harrow and give the land one or two strokes, after which let it lie a day or two before starting the drill, as it works much nicer after the surface has dried a little. I invariably drive across the furrows, as I find the drill works better this way, though it is perhaps a little harder to drive and keep straight. I also like to harrow across the furrows as much as possible, as this plan fills the furrows much better than harrowing up and down the same way it was plowed, and leaves a much smoother surface for the binder to work on.

In about a week or ten days after the grain has been sown, or before it shows above ground, I give it another good harrowing. This is for a two-fold purpose. Firstly, it loosens up the surface which has by this time become slightly hardened or baked if it was a little wet when worked the first time, and by breaking this up you thus form a mulch, which helps very materially in preserving the moisture, if it is a dry spring, and secondly, it destroys innumerable weeds which have by this time sprouted, and if turned up to the sun will doubtless be killed. I now wait until the wheat is well above ground, or until a second crop of weeds has started to grow, when it should have another turn of the harrow, but this time a light harrow should be used, with rather blunt teeth, which is just as effectual in killing weeds as the heavier harrow, but does not pull up so much wheat, and is also much lighter on horses. Great care should be taken at this stage to do the harrowing just at the right time, which is when the weeds are just coming through the ground and before they have formed a green leaf, for after they are once well-rooted the harrow is of very little use in killing weeds, although I am persuaded it will always help the wheat at this stage.

Some will doubtless say, "We cannot afford to give our wheat land so much work; we have not the time; it will not pay, etc." To which I would say give it a trial, and you will find it will pay you every time, as you will not only have a comparatively clean crop, but you will also have a much better yield than if put in the old way, which is generally to sow the grain and give it one or two

strokes of the harrow at the time of sowing, with no further work of any kind.

As to the roller, I would say never use it in this country, except on very rare occasions, when the land is very rough and lumpy, and even then I question if it does any good except on spring plowing, and I would always give a stroke of the harrows after the roller, as there will then be no danger of it drifting in the event of a high wind.

Note.—The advice given in this paper could hardly be improved on as far as the Portage Plains are concerned. But there are very few farmers who can manage to do their fall plowing so early; and outside of the plains, it is difficult to get land that will, between plowing and seed time, get firm enough for wheat-seeding. The ruin of most fall plowing on light land is that it helps to dry out soil already far too dry. Two rounds of the harrow has been one means tried to firm down the land, and so help it to gather moisture enough to germinate the seed properly. On heavy soils, such as the Red River Valley, it was last fall impossible to plow at all owing to the dryness of the soil. The writer has in practice proven his fitness to counsel others with less experience. But what suits him well will not, as a rule, work satisfactorily elsewhere. We should like to hear from others on this very important question.

Noxious Weeds and How to Destroy them.

By T. H. McCormick, Cypress River, Man.

A short time ago the municipality of South Norfolk offered a prize for essays on "Noxious Weeds." The following paper was awarded the first place. The writer does not say anything very new, perhaps, but covers the ground in such a way as to show that he has a sound practical knowledge of the topic he handles, and what he says should have the careful attention of every reader of this paper. The writer says:—

In the matter of noxious weeds, Manitoba is generally conceded to be the dirtiest province in the Dominion, and already we find that our own municipality of South Norfolk has a very large percentage. Of the hundred and fifty-eight varieties listed in the Dominion schedule, we have ninety-three, while in that issued by the Manitoba government some sixty-three have already been identified.

Of course, all these weeds are not found troublesome in any one particular locality, but each thrives in that kind of soil, and under those circumstances which best promote its habits. One kind of weed might flourish and become a very annoying pest on light or dry soil, while on a heavy or damp soil, it would not be noxious at all.

The fact of there being so many varieties of weeds in Manitoba is owing to various agencies, viz: the wind, the water-courses, the birds and farm stock, and the careless habits of the farmers. The wind wafts seeds through the air, sends the various tumble weeds careering over the prairies for miles, and in the drift dust and snow thousands of seeds, through lack of trees and close fences are allowed to spread rapidly over a whole neighborhood. Watercourses, when overflowed, carry down a vast number of seeds, and when the water dries up the seeds are left on the soil.

In addition to being spread by droppings from birds and cattle, many varieties of seeds have a sticky or adherent tendency, thus causing them to adhere to the feet of animals, like mustard seeds, or, if enclosed in a burr-like covering, they

cling, not only to the coats of animals, but to almost everything with which they come in contact. For this reason, farmers should strictly forbid the passing of animals or vehicles of any kind over their fields.

Lack of care and thought on the part of farmers in the matter of sowing foul seed, in drawing ripened plants over the fields with harrows, plows, wagons, etc., in spreading manure containing seeds, and the manner of handling all farm implements, and especially threshers, has as much to do with it as anything else. Threshers should be thoroughly cleaned before coming upon any farm. True, there are stringent laws to this effect, but they are seldom carried out. It may be a wise plan for a number of careful farmers in each locality to procure the exclusive use of a machine in order to check, as far as possible, the introduction of new weeds. It is important, also, to have regular threshing sites, and to watch them with great care. Good fences very materially assist, inasmuch as they check the course of tumbling weeds and prevent undue traffic across the fields. Again, all the grain food of farm animals should be crushed, and finely crushed, as this is the only effective means of destroying the germinating qualities of seeds.

The foregoing suggestions, as will be seen, are merely precautionary, dealing principally with the introduction and spread of new weeds. But having, as we have here, such a large and varied assortment that have already gained a firm foothold, methods will have to be employed for their extermination.

In the first place, it is absolutely necessary that farmers should interest themselves regarding the nature of the various kinds, be able to distinguish noxious weeds when they see them. They should on no condition allow a new or dangerous weed to gain a foothold in their neighborhood, and without a knowledge of its habits, it proves a difficult matter to check it. Each farmer should be possessed of a work on weeds, and should make himself familiar with the different varieties and varied classifications. Books of this kind are prepared and issued by both Dominion and Provincial governments and may be obtained by writing to the Experimental Farm, at Ottawa, or to the Department of Agriculture, Winnipeg. In addition to naming and describing the more dangerous plants, they also contain many valuable hints on their habits, and the most effective means for their destruction.

Limited space renders a minute account of each weed and the means of destroying it impracticable. We will divide them, therefore, into three distinct classes, viz:—Annuals, Biennials, and Perennials, for all members of a class require similar treatment.

Annuals include all those which grow from seed and mature in one season. Their roots seldom penetrate very deeply into the soil, but on account of the branchy nature of the plants, they are capable of producing a vast quantity of seeds. To this class belong the many varieties of mustard, the Lamb's Quarter, Wild Buckwheat, etc. Sowing down to grass, and thus preventing their growth and the production of fresh seeds would prove helpful in eradicating many of them, but in the treatment of Mustard it has been proved to be of no effect. The seeds of these plants, being of an oily nature, retain their germinating qualities for years, only waiting for favorable conditions to reappear as numerous as ever. When buried several inches in the soil, more especially if covered with a stiff sod, they cannot grow, but on the sod being turned over, they spring up at once. Thus it will be seen that the only way to treat them is to cause the seeds to germinate, care being

taken to have the plants destroyed before the seeds form. It must be borne in mind, however, that some of them mature very early. Stink Weed, sometimes called French Weed, which is one of the most dreaded of the Mustard family, is capable of producing at least two consecutive crops of seed in a season, and if pods are on the plant at all, be they ever so green, there is sufficient nutriment in the stem and leaves to cause many of the seeds to mature. The best methods of treating this weed and several others, for example, Hare's Ear Mustard and Tumbling Mustard, is to have them pulled and promptly burned, or, if they infest too large areas, have the green plants well covered by plowing, where they will soon decay. If the field containing them is to be summer fallowed, it should be done very early, and following this, it should be harrowed every few days to encourage germination and destroy those which have started to grow. If they get ahead of the harrow, the field should be again plowed, and harrowed as before. This process should be continued until frost rendered their further growth impossible.

Biennials, like Annuals, also grow from seed, but they require the second year to mature, the first being spent in storing up nourishment for the second year's growth. They require similar treatment to the annuals, but having somewhat more persistent roots, it would be well, if possible, to cut them off well under the surface.

Perennials, however, require a different treatment. They are propagated, not only from seeds, like annuals and biennials, but also from series of creeping underground root-stocks. These root-stocks send up shoots, thus forming new plants. The important point to be observed is that they grow by means of the leaves of the plant above ground; hence, if it is found impossible to kill or remove the roots, the method to be employed is to starve them out by keeping the plants cut down. If, however, as with "Quack" or Couch grass, which belongs to this class, the roots can be exposed to the direct rays of the hot summer sun, they will usually die out. Very often, as is the case of Canada Thistle, the soil cannot be plowed to a sufficient depth to get underneath the roots, and even if it could, such a comparatively small portion would be exposed that they would not dry out. For the thistle, then, providing it infests a large area, the best method to be employed is the starving process, and most success has followed mowing them down while just opening into flower. If these weeds appear only in occasional small patches, they might be smothered out by placing on them piles of straw or manure. The smothering process might, indeed, be further utilized by seeding down the affected field with a dense sod-forming grass, or by sowing a crop like clover or millet, that would exclude the light.

Fields, however, cannot be kept clear of weeds so long as railways and public highways, which pass by and through them, are veritable hot-beds of production. The railway companies, indeed, make a pretense of destroying the weeds on the track, but, as has been observed to be the case, the plants are mowed down when in an advanced stage of growth, and the stem, branches, leaves and air supply sufficient nurture to ripen the seeds.

Another means of spreading weeds is exhibited in the manner of disposing of the screenings from elevators, more especially farmers' elevators. Notwithstanding stringent laws to the contrary, hundreds of bushels are annually drawn away by men on rented farms, by men who intend soon to sell out, and by others who do not know or do not care about the evil results. When the screenings are not drawn away, they are frequently piled in a heap outside the elevator, where they

are either eaten by cattle or blown away by the wind.

To correct these abuses, it might be advisable to appoint a few inspectors, men who know noxious weeds when they see them, and who would be impartial in the matter of their destruction. They should be paid sufficiently to allow them to put their whole time in the matter.

At their best, however, inspectors can accomplish but little, and if farmers were to realize the dangers which threatened them, and the heavy losses sustained through the existence of noxious plants, inspectors would not be needed for a day. Governments, provincial and municipal, could expend funds to no better purpose than to arouse the interest of farmers by a general distribution of printed matter on the subject, and by sending around a few learned lecturers, who, in addition to giving the farmer a distinguishing knowledge of the weeds in question, would also be able to propose and explain the most effective methods for their extermination.

How a Farm Should be Kept.

By Prairie.

Upon this subject I will strike out from the present and go the year round. It now being winter, and the ground well covered with snow, trifles are not so easily seen, but if things are not put into their proper place before the snow flies and the building all properly plastered, the place appears to the stranger to be in a very unsatisfactory state. Now to the real state of matters for the farm. You have everything in their place to commence with, and the cattle all put up for the winter. Haul away the manure every day from the stables to the stubble and you have the field manured for the next crop. When handling the feed, do it in a painstaking manner—that is, clean up what you let fall, and when the spring comes you have no spoilt hay or straw lying about that the cattle have not got the benefit of. The firewood that you require for the next day cut and place it under cover, and it is ready for the stove. When watering cattle, do not leave the trough full of water when done, but always empty out what is left, and it will in a great measure save your trough from the wear and tear that it would otherwise cause. When the season opens clean up the cattle droppings from the yard and around the well that have fallen during the winter among the snow. Next take a walk around your fences and see what repairs are needed, so that you will be able to do them in a time when you cannot plow or sow. When done with the seeding operations, clean and get repaired, and then put your tools and implements into a shed made to accommodate them, and then you have them ready for the next season. Now the spring work over, get your firewood in and build it up for the coming winter, and then your fireguard is to be plowed; a day or so over the farm to cut down noxious weeds, the small seeds and roots to be cleaned, and any building done between now and having that may be required.

Haying, and then harvesting, is now upon you. Machinery is hauled out of the implement shed and oiled, and you are ready to start. When finished, do the same as with the spring implements, clean sharp knives, see to any repairs and put into the shed all ready again for the next season. Now, by the end of the season you have got all your grain and hay at home in stack and finished off with a nice solid appearance; every stack full hearted up, and the stack-yard raked clean of any hay or straw, and the roots all carefully stored. Then that part is also ready for what is required of it.

Then commence the beginning of the part at where I started from. You have everything trig and clean. Now see to the buildings: get all plastered and put in proper trim for the winter's accommodation; also have a place for such tools as are in daily use, viz.: Axes and saws, and don't throw them down anywhere.

Now, when you are what you may term finished, you can look around with a certain amount of pride and see everything in proper order, and strangers coming about cannot but fail to observe that that man is truly helping himself as well as the country. When you have made up your mind that the farm is as much required to be as carefully and economically kept as any of our institutions, then you will fall into a proper method of keeping things in their right place.

RANCH FOR SALE.

The finest ranch in Wood Mountain, with first class stables, corral, hay corrals and a shed of 15x40 feet; a \$100 dam built 17 feet high, which makes a pond 1500 feet long and 300 feet wide, fed by springs and is suitable for trout or any sort of fish; outlet running constantly through shed and corral with water enough to irrigate the 30 acres of good soil next to the shed; also a house and furniture. The whole worth \$1200, all for \$700, with reasonable terms. Apply or come.

P. LAPOINTE, Willow Bunch, N.W.T.

The MANITOBA.



MANITOBA HOTEL, WINNIPEG

I am seeking your patronage. You can have mine; I pay highest cash price for any of your Dairy Produce—

RECIPROCATE.

F. W. SPRADO,
MANAGER.

Growing of Sugar Beets.

A good deal of irresponsible talk has been indulged in here of late by people who know little or nothing of the business on which they profess to enlighten us. And only the other day the Quebec Journal of Agriculture, a paper usually pretty safe as a guide, has a detailed estimate of the cost of their production, very far indeed from the inevitable expense of production, especially in a country like this, where labor is always high in the growing season. The Quebec editor says: "Mr. Stewart, in the Country Gentleman, begins by saying: 'It is not easy to grow beets.' Now, here we are absolutely at variance with Mr. Stewart: it is very easy to grow sugar-beets if one throws aside the childish idea that any unusual treatment of the plant is required. Prepare the land as for any other root crop: drill in 5 pounds of seed to the arpent in rows 24 inches apart—on the flat—; single at 8 inches, by chopping out gaps in the rows with a 4-inch hoe, and pull all the beets but one from the bunches by hand; keep the horse-hoe going, and when the beets are well started, after the first hoeing, give a dressing of 200 lbs. of nitrate of soda to the arpent."

Nothing can be much easier than this; but the truth is, in the States, as in this province, people began to try to grow beets before they had grown turnips, swedes, or mangels, and, consequently, made a muddle, and an expensive muddle, of the job.

The real cost of growing an arpent of sugar beets, as stated by our pupil, Monsieur Seraphin Guevremont, is as follows: "The Farmer," as he says, "being supposed to have to pay for every operation—absolutely for everything:

To two plowings	\$ 2 00
To two harrowings	1 00
To forty loads of dung, including purchase and cartage	10 00
To drawing drills	50
To spreading dung in drills	1 00
To splitting drills	50
To rolling drills	25
To sowing drills	25
To seed, 12 lbs., at 15c.	1 80
To four horse-hoeings	2 00
To singling	3 00
To first hoeing	2 40
To second hoeing	1 80
To harvesting, cartage to factory, etc.	12 00
	<hr/>
	\$ 38 50

Of course, it is not fair to charge the whole of the dung and cultivation to the beet crop; one-third of these expenses at least ought to go to the succeeding crops of grain and grass, and this will reduce the cost per arpent to, at most, \$26.00."

This estimate is pretty severely criticised by a writer in the Montreal Star, as follows:—"One who has grown beets knows how easy it is to say all this, but how difficult it is to do it. For instance, let any one undertake to pull all the little beets but one at every interval of 7 to 8 inches out of every row, in an acre of land by hand; and he will find it harder work than to horse-hoe ten acres of corn or potatoes. He will have to go on his hands and knees, four miles and a little over, and carefully pull up each of these slender rooted seedlings, having so slight a hold on the soil that anything more than the tenderest touch will entirely uproot it; and he must, more than three-fourths of the time, select the chosen plant out of a matted bunch of three or four or five or six, with great care lest the whole bunch is torn out. The average farmer doesn't like to go on his knees, and crawl four miles with painfully bended back to pull out on an acre these tender little plantlets. In European countries the women and chil-

dren do this work, but here our children go to school, and our wives keep house; and rather than have them do this back-breaking work, we don't grow beets. And simply because it is not so easy. Evidently the editor of the Journal of Agriculture and Horticulture never grew a crop of beets, or he would be forced to this conclusion. The estimate for the labor on one acre made by the pupil aforesaid, and without manure and harvesting, is only \$16.50, which may be about the average in Germany and France at the miserable wages paid there to women and children for doing the work of spreading manure and weeding the crop."

The critic goes on to say: "It is quite possible to grow beets almost without putting a hand to a plant. If the land is plowed well and harrowed immediately, and has been surface manured previous to the plowing; and after lying two weeks is then thoroughly harrowed to kill the young weeds; and is then immediately sown with the seed drill, which rolls the surface after the seed is sown and firms the soil over the seed, and gives a good holding for the young plants; and is cross cultivated, as well as cultivated in the rows, cleaning the rows right up to the drill marks; and a seed drill with a suitable dropper is used so that no seed is dropped in clusters of several plants, there will be very little hand work needed except in very foul soil, and no farmer would sow beets in such foul land. But with every care and reasonable amount of labor for a crop of 10 to 12 tons to the acre, and allowing for the unearned value of the manure; and making a fair allowance for the benefit of the clean culture to succeeding crops, the cost of growing beets will not fall short of \$40 an acre."

"Six pounds of seed is quite enough for an acre, but the writer never yet got his seed for less than 50 cents a pound, and seed imported especially from France has cost \$2.50 per pound. In getting seed it should be carefully inspected with a magnifying glass, for the mice are very apt to bite open the capsules and eat out the seed, and in this way, and not knowing the precise nature of the seed, one may lose his crop through getting 'seed' that has very little, if any, seed in it."

"It is much easier to grow turnips than beets, on account of the tenderness of young beet plants, which in their first week of growth may be wholly overwhelmed with weeds, before the grower is aware of it, and then the cost of cleaning the crop by necessary hand work will far overgo the whole income of the crop. Expert estimates of the cost of growing beets in the State of New York, where sugar factories are at work, recently made, amounted to from \$50 to \$80 an acre. This is too high, but the estimate given by the editor of the Journal of Agriculture and Horticulture is quite too low. It is quite doubtful as yet if the production of beet sugar will be found practicable either here or in the United States, except under a considerable protective duty, and this on account of the cheaper labor in Europe."

An American beet grower has much the same testimony to offer:

"Thinning is no small undertaking and should be done just right. When the plants are up and showing a good stand and two leaves, we thin first with a broad hoe, cutting out its width and leaving a small bunch, or two or three plants together, about eight inches apart or between the hoe cuts. When two more leaves appear then comes a tedious undertaking, viz.: Thinning these small bunches to one good plant. But it must be done, for more than one is a place will twist and grow around each other, giving them wry shapes and reducing their sugar content. It is not advisable to leave the beets too far apart in the row. They will

grow too large, and again the saccharine value is lowered."

These are the opinions, not of men who farm at the desk and seldom get tired by real work. Such being the case, it will be time enough for us to begin when Quebec and Ontario find it can be done without serious loss.

Weed Theories.

A farmer out Cypress River way claims that he can exterminate weeds in one or two seasons by sowing a good thick crop of buckwheat, which, he says, is the most succulent of plants. When in bloom plow under when wet either from dew or after rainfall and turning the growth well under with a chain attached to the plow; then harrow lightly and roll. His theory is that the buckwheat would heat sufficiently in the soil to kill the germination of the seeds to the depth of the furrows.

T. C. Wallace, in Farming, contends that the condition and texture of the land has a good deal to do with the nature of the weeds upon it. Sour land will produce a class of weeds that would make little headway in dry loam. There is truth in this, anyway. The writer says: "Liberal applications of pure non-acid phosphate of lime have frequently effected a cure, the mustard disappearing in a couple of years, and sometimes even sooner."

Burning and Borrowing.

Wm. Middleton, Brandon, in a recent review of the year's work of the local Institute, says: "We opened upon a paper given by Mr. Bedford upon 'Mistakes Made Upon the Farm.' Mr. Bedford did not under-rate or over-estimate any of the mistakes that are made, but was very generous to all the faults that humanity is heir to, and he gave us some good pointers as to how to avoid these in the future. However, I see that one, Mr. John Brander, of Nesbitt, takes objection to Mr. Bedford's remarks by an article in the Nor'-West Farmer for January, 1898, 'Stacking Grain Upon Prairie.' Mr. Brander's plan is the same as some of us have been following for the last sixteen or seventeen years. He stacks all his grain in the field, and then plows a good fire-guard around each field upon which he has stacks, and then when the thresher leaves, or soon after, he gathers up all the grain left by the thresher and then fires the straw that he does not want for his own use, on a calm day, so as not to damage any other people's property by fire. He claims: 1st. That he gets the straw cleanly burnt up. 2. He gets all foul seeds burnt up, and in after years the grain still maps out itself in the same shape, but with the difference that the golden grain grows one-half heavier, and as clean as any farmer would wish. The second objection that Mr. Brander made was, the borrowing of farm implements. I hold with what Mr. Bedford says upon this matter, and I would put it a little stronger—the indignity of borrowing. No independent farmer, with any dignity or character, indulges in any such pernicious habit as borrowing. The borrowing of farm implements is one of the greatest annoyances to lenders who may lack the moral courage to say 'No,' when they would like to do so. Mr. President, I speak very feelingly on this matter, because I have had great experience in this line of farm traffic, and I know full well what it is to loan my machinery. But, whereas, I used to say 'Yes,' I can now say 'No,' and feel that I am justified in doing so."

Hail Insurance.

G. L. Dodds, Reeve of Arthur municipality, has been trying to work out some improvements on the Hail Insurance Act, with the view of making it more generally acceptable. A. M. Campbell, M. P. P., will bring them before the House, among which are the following:—

1. For fixing a limit to eighty acres on a quarter section by way of protection up to the amount of the present exemptions, viz., seed for eighty acres at two bushels per acre, and forty bushels for bread, seed and bread wheat to be computed at 50c. per bushel. Owners of a quarter section will be entitled to insurance in proportion to their cultivation, and the damage done up to eighty acres.

2. For regulating the number of appraisements, viz., at the time the damage is done, and reported, and at the time of threshing, if deemed necessary by the council.

3. Providing for the borrowing of money to pay losses entertained by the council, until the taxes rated by the council for the purpose of paying losses are collected, and as in the matter of schools or any other rate.

4. That Sections 11 and 19 be amended that ratepayers in arrears of taxes, who suffer damage from hail, and their claim entertained by the council, the amount of taxes due the municipality be deducted and the balance paid the ratepayer, who is often the man that needs the protection the most. The way the act now stands, he is levied on and has no protection through being behind with his taxes should the by-law be carried.

5. That resident owners of land rated for \$300 and upwards on the last revised assessment roll be entitled to vote on the by-law.

A New Harvesting Machine.

The Conroy harvester is a machine that combines harvester and thresher in one operation, as is said to have been tried with success on the Government farm at Ottawa. It cuts the grain in the same manner as a self-binder, but instead of binding the grain, delivers it to a threshing attachment, which threshes and sacks the grain. The machine is operated with four to six horses, depending on the condition of the ground, and requires only two men, one of whom drives and attends to the cutting gear, while the second attends to the thresher and ties the grain bags when filled. Fifteen to twenty acres a day can be cut, threshed and sacked, and it is claimed that the cost of saving the grain in this way will not exceed 8 cents a bushel as compared with a cost of about 13 cents for cutting and threshing by present method.

The owner will take steps to have it introduced in the west this season, most likely at the Winnipeg Industrial. The great difficulty with such a machine is not so much mechanical as climatic. We all know that grain threshed off the stook is not nearly so safe as after it has got sweated in the stack, and it must be still more risky to cut, thresh and deliver to the elevator all in a day or two's time. Once that point is settled, such a machine may be introduced with some degree of confidence. Our climate and wheat are not at all like those of California, and we must govern ourselves accordingly.

Jas. McKenzie, M. P. P. for Lakeside, has promised a \$50 prize to be competed for at the next show at Portage la Prairie for the best 20 bushels of Red Fyfe wheat, which shall become his property.

Siberian Plants and Seeds.

Last year, as was noted by The Farmer at the time, Professor N. E. Hansen, of the South Dakota Agricultural Station, was commissioned by Secretary Wilson of the Agricultural Department at Washington, to visit Eastern Russia and Siberia in search of plants likely to be useful on the dry uplands of the Northwestern States. After having spent several months and travelled thousands of miles, Mr. Hansen has come back with three carloads of seeds and plants, all collected from regions with a still less genial climate than can be found here. Twelve tons of seed of bromus inermis from the driest parts of Eastern Russia, red clover, new legumes, including alfalfa, cereals and grasses, make up the bulk of his agricultural collection. In vegetables are musk melons from Turkestan and West China. In fruits are seeds of the sand vetch, cherries of good size and fine flavor that stand a winter 40° below zero, a semi-recumbent raspberry, and hybrids of the Siberian crab and hardiest apples, with many other sorts of fruit and ornamental trees, both in seeds and cuttings. These seeds and plants will be distributed mainly to the experiment stations of the Northwest, where their future will be intelligently cared for. This is one of the most interesting botanical collections ever brought in, and Professor Hansen is to be congratulated on his success. Prof. Hansen was one of the half-dozen Northwestern scientists, who, a short time ago, visited the Brandon and Indian Head stations, and were naturally very much pleased to note the good work done there.

It can hardly be expected that all the collection made in the far east will be found equally valuable here, but there are sure to be results enough to justify the expenditure made, and in due time some of the fruits of this trip will find their way to our stations here.

Dr. Manly Miles, who, so far back as 1861, was a professor of agriculture in the State College of Michigan, has just died at the age of 72. In 1875 he resigned his chair that he might follow his own methods of research, and has since done excellent service as a writer and experimentalist.

Wm. Hamilton, Indianford, says: Prepare summer fallow by burning the stubble in the fall. If this cannot be done, harrow the field so that the seeds may germinate, start plowing between the 10th of June and the 1st of July (according to season), harrow immediately after each day's plowing, start harrowing again before the second leaves begin to form on the new plants, and continue to harrow periodically, so that the ground may retain the moisture, and thus start all seeds growing, and also furnish a good seed bed for the following season.

"Western Prairie," in the Holland Observer, says: On a farm near this place, which had been unoccupied for some time, the old fields were very much overgrown by weeds. The land was plowed three years ago and sowed with oats. About sixty sheep and lambs were permitted to feed on the fields, which were not fenced. The chief object was to keep the sheep in sight, as wolves were numerous. The next season the ground was plowed and sowed with turnips, and the sheep again permitted to run, and last harvest a crop of twenty bushels of No. 1 wheat to the acre was reaped, and not a single weed was to be seen.

Education, in this age, means cramming in more than leading out.

It is doing that which costs something that strengthens the moral backbone.

Free Trial To Any Honest Man

The Foremost Medical Company
in the World in the Cure of
Weak Men Makes this Offer.

HEALTH AND ENERGY ASSURED.
HAPPY MARRIAGE, GOOD
TEMPER, LONG LIFE.

In all the world to-day—in all the history of the world—no doctor nor institution has treated and restored so many men as has the famed ERIE MEDICAL CO. of Buffalo, N. Y.

This is due to the fact that the company controls some inventions and discoveries which have no equal in the whole realm of medical science.



So much deception has been practiced in advertising that this grand old company now for the first time makes this startling offer:—

They will send their costly and magically effective appliance and a whole month's course of restorative remedies, positively on trial without expense to any honest and reliable man!

Not a dollar need be advanced—not a penny paid—till results are known to and acknowledged by the patient.

The Erie Medical Company's appliance and remedies have been talked about and written about all over the world, till every man has heard of them.

They restore or create strength, vigor, healthy tissue and new life.

They quickly stop drains on the system that sap the energy.

They cure nervousness, despondency and all the effects of evil habits, excesses, overwork, etc. They give full strength, development and tone to every portion and organ of the body.

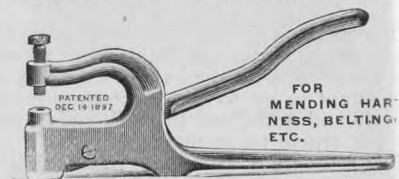
Failure is impossible and age is no barrier.

This "Trial without Expense" offer is limited by the company to a short time, and application must be made at once.

No C. O. D. scheme, no bogus philanthropy nor deception, no exposure—a clean business proposition by a company of high financial and professional standing.

Write to the ERIE MEDICAL COMPANY, BUFFALO, N. Y., and refer to seeing the accounts of their offer in this paper.

EVERYBODY'S FRIEND RIVETER.



PATENTED IN CANADA

Indispensable to farmers, livermen and threshermen. The only machine that can be operated with One Hand while holding goods with other. Best selling article ever introduced. Price \$1.00. Send for sample. Agents wanted.

THE SHEEHAN MFG. COMPANY,

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DR. BARNARDO'S HOMES.

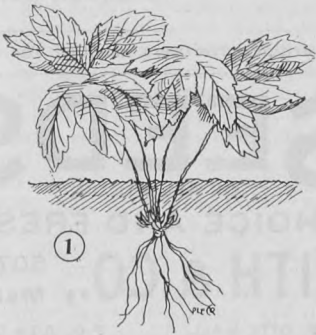
The managers of these institutions invite applications from farmers and others for boys and youths who are being sent out periodically, after careful training in English homes. The older boys remain for a period of one year at the Farm Home at Russell, during which time they receive practical instruction in general farm work before being placed in situations. Boys from eleven to thirteen are placed from the distributing home in Winnipeg. Applications for younger boys should be addressed to the Resident Superintendent—115 Pacific Avenue, Winnipeg, or P. O. Box, 970—and for older boys, possessing experience in farm work, to Manager, Dr. Barnardo's Farm Home, Barnardo, Man. [1927]



O Painter of the fruit and flowers,
We thank Thee for Thy wise design,
Whereby these human hands of ours
In Nature's garden work with Thine.
And thanks that from our daily need
The joy of simple faith is born,
That he who smites the summer weed
May trust Thee for the autumn corn.
Give fools their gold and knaves their
power,
Let fortune's bubbles rise and fall,
Who sows a field or trains a flower,
Or plants a tree is more than all.
For he who blesses most is blest,
And God and man shall have his worth
Who toils to leave us a bequest
An added beauty to the earth.
—J. G. Whittier.

Strawberry Growing.

It is long since strawberries began to be cultivated in Manitoba. In 1885 A. P. Stevenson was raising as good crops of them as any man could wish. At Stonewall, 10 years ago, Mr. Magwood grew

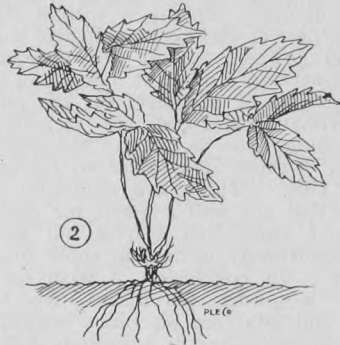


them profusely and with certainty. There were plenty of failures in the same time, and if such men as Mr. Magwood had been bonused by the province, it would have been one of the best possible outlays of public moneys. His was an object lesson that none could fail to read. On the Red River several growers have done fairly well, such as Messrs. Tomlin, Major and Whellams. A few days ago Mr. Whellams read a paper before the Horticultural Society, which pretty much covers the ground and which is given below. He contends for the method of growing in "hills" as superior to the "matted rows" contended for by most gardeners. The paper was followed by an animated discussion, in which Messrs. W. G. Scott, R. Alston, Prof. Baird, W. H. Tomalin and G. H. Greig took part. Several of the speakers, especially Mr. Tomalin, advocated the "matted row" system.

Mr. Whellams says:—My own experience covers four years, but even from that I believe the time has now arrived when we may consider that the growing of strawberries for market in Manitoba has got beyond the uncertainty of the experimental stage, and we can now say without hesitation that in this province we can grow as fine flavored and almost as large berries as are grown in Ontario. In making this statement, I am fully aware of the responsibility attached to it, but when I state that a number of gardeners in the vicinity of Winnipeg have had

fair crops of first-class fruit for the last six years, I consider these facts warrant such an opinion.

The strawberry delights in a deep, well-enriched and thoroughly cultivated seed bed; it will do well on a variety of soils as long as there is good drainage. Preference may be given to sandy locations over heavy clay, as the former will be earlier and is much easier to work, which is a special advantage in the setting of young plants. The first essential to success is the establishment of good, strong,



vigorous plants, ready for planting in previously prepared land during the early growing seasons of spring and summer, keeping in mind the earlier they are planted the better will be the crop the ensuing year. In other countries it is usual to plant both in the spring and fall; but I find that plants set out in the fall in this country invariably fail to become well enough rooted to withstand the winter and give good crops the following season, and a plant that does not thrive from the first time it is put into the ground will never amount to anything as a fruit producer.

For growing plants it is best to select them from stock that has not been allowed to fruit, but which has been kept expressly for that purpose. It will be found that plants grown in this way will be more vigorous than those grown from stock that has been partially exhausted by fruiting. There are several methods of cultivating plants, of which I think the two following are the best: The first is to take small flower pots three inches in depth; these are filled with specially prepared, moist, rich soil; they are then completely imbedded below the surface. The runners are placed over the pots and held in place with a small, flat stone, or with a small wooden peg. With a little



moisture and favorable weather, the little rootlets will soon find their way into the fine earth waiting to receive them, and in a few weeks the plants will be ready for removal. Another and much simpler plan is to put in the little plants as they are thrown out on the runners of the older stock. A little care in setting the runners will be well repaid by a better stock of well-grown plants; if left to catch, where they can, high winds will often do a great deal of harm in shifting

the runners, and so disturbing the young plants before they are well rooted, and in this and other ways it is often too late before they become well enough established to stand removal. No young stock should be allowed or expected to bear fruit the first season after planting, nor will it be found profitable to allow even the few flower trusses they throw out to remain. These should be pinched off, as the gain made in the small amount of fruit they will bear the first season will not compensate for the drain it makes on the vigor of the plant. I fancy I hear some one say I can't afford to let any crop have the use of my land and not give me any return for the whole of one season, but though these plants occupy the ground for a whole season the intervening space need not be entirely wasted. It is both economical and essential for horse cultivation to allow from two and a half to three feet between the rows, as recourse can then be had to inter-cropping. For occupying this space between rows onions are particularly useful; the tops do not spread, while the bulbs are highly profitable. Two or three drills may be grown between the rows without injury to either crop.

METHODS OF PLANTING.

I believe there are more plants of all kinds lost from careless and improper methods of planting than from any known cause. In order that I may make myself more clearly understood as to



what is to be desired and what is to be avoided, I have prepared the attached illustrations. In the first figure you will see the plant has been buried too deeply; the heart is covered, and consequently cannot grow.

In the second it is not planted deep enough, and the roots are too straight in the ground.

In the third the hole has not been dug deep enough, the roots striking the hard surface, causing them to double up in an unnatural position, with the inevitable consequence,—the death of the plant during the first spell of hot, dry weather.

The fourth plate represents the proper method of planting strawberries; the roots are spread out in a natural position, they are able to gather as much nourishment from as far around the plants as it is possible for the roots to reach. They are all feeding in a different place. The heart of the plant is not buried; the fresh shoots coming through the crown meet with no resistance, having to push themselves through an inch or two of earth, and still the neck or collar of the plant is not exposed to the air to become hard and dry, with the resulting contraction of the sap vessels. One plant planted like this is worth a dozen of the others. The inexperienced, I wish particularly to impress with this point: Remember there are many ways of doing things wrong to every one way of doing them right, and a plant that is not properly planted in the

first place will be nothing but a fruitful source of annoyance and disappointment to its cultivator.

In selecting a spot for a strawberry bed it is necessary to have it located in a somewhat sheltered position, in order that the snow will lie upon it until quite late in the spring. If you have not the desired shelter belt, efficient and profitable protection can be had in the following manner: Plant rows of raspberries or other bush fruits, eight feet apart, filling in the spaces between with strawberries, to within three feet of the canes or bushes. This will not only have the effect of holding the snow, but will give plenty of light and air to the latter fruits.

GENERAL MANAGEMENT.

This consists in snipping off the runners as fast as they form, except when they are wanted for producing plants. This method is somewhat new, and I consider it a long way ahead of the matted system. It has been followed in England for about twenty years, and is now extensively adopted in the United States. From the State of Michigan we have one grower remarking that he would no more think of going back to the matted row system than think of cutting his hay with a scythe. As the plants throw out runners they are persistently cut off, a new fruit stem resulting from every runner that is so cut. The plants will form pointing crowns from four to six inches across. The result is the fruit is much easier and quicker picked. There is no danger of trampling on unseen berries. The crop is fully as good, and you have perfect control of both weeds and plants, and are able at any time to hoe close up to the plant, thus keeping the plantation clean at all seasons. I have seen many good patches absolutely wasted on account of the inability of the owner to get among them to cut out the weeds for fear of destroying the fruit; whereas, had this hill system been followed, a timely hoeing before fruiting time would have saved the crop.

After the fruit is picked all rubbish must be raked off and burned. I say burned, as it will then have no chance to harbor insects. The cultivator is run lightly between the rows. As soon as the ground is well frozen in the fall, it will now be in order to mulch the bed with a layer of straw manure, or preferably some marsh hay, the latter to be preferred on account of the liability of there being so many foul seeds in the straw. This covering should be about three inches thick over the entire bed. In the spring care must be taken to go over the ground and clear away the mulch so that a hole is left above each plant, which will soon make its way above the covering. This layer of straw has a three-fold advantage. In the first place, it keeps the frost longer in the ground, thus keeping back too early a growth in the spring, thereby lessening the chance of injury being done to the blossoms by spring frosts. It helps to keep down annual weeds and makes a nice clean cushion for the fruit to rest on. It also keeps the ground moist, and so prevents evaporation.

GATHERING THE FRUIT.

In picking for market the fruit should not be gathered while wet, as the moisture is injurious to its keeping qualities. Pick when the fruit is as dry as possible, and do not let it become too ripe. Always leave the shucks and a little piece of stalk on each berry. This will help them to retain their shape and ship better than if they are removed. Let the quality and size of the fruit be uniform throughout the box. Do not top off with a few large berries, and have all the small noddled mess in the bottom. It is a dishonest

way of doing business, and a practice which will bring distrust and failure upon the follower of such methods. Let quality be your trade mark.

VARIETIES.

There are many different kinds, but there will be no disappointment if any of the following kinds are selected:—Sharpless, Captain Jack, Wilson and Crescent. The three just named varieties are perfect or bisexual. On the Crescent the blossoms are devoid of stamens, and, so-called pistillate or imperfect and, in order to produce fruit, it is necessary to plant every other row with a staminate or perfect variety to pollinize the imperfect flowers. Some growers claim it is not necessary to plant more than a row every eight or nine feet for the purpose of fertilizing the pistillate varieties, but everything is to be lost by too few staminate, I think it is safer to be on the right side. There are numerous other kinds that are well adapted for this province. I know, but I have not yet had the opportunity of testing them on their merits. In conclusion, I wish to warn those would-be purchasers who have been and who are so often beguiled by the enticing plates of enormous strawberries which the salesman from some remote part of Ontario or the States shows them. My advice is to take no stock in such pictures, and do not listen to the promises painted in such roseate hues. Buy your plants from some reliable man who is in the business in Manitoba, who has acclimatized stock, and if you wish for some newer kinds get them from some reputable nurseryman, whose climatic conditions are as nearly like our own as possible.

NOTE.

Looking to the amount of work that must be done on ordinary farms, it is plain that only those with a special taste for gardening should attempt strawberry-growing except on a very small scale, but for such the pointers thrown out in this paper are well worthy of attention. Mr. Stevenson rather prefers the matted row. Plants from a distance are liable to heat in transit, and so get spoiled.

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Our No. 2 Collection contains 16 packets for 50c, as follows: Bean, dwarf; Beet; Carrot; Corn, sweet; Cucumber; Cabbage, Celery, Lettuce, Musk Melon, Onion, Parsnip, Parsley, Peas, Radish, Tomato, Turnip, and one packet Wild Garden Flower Seed Mixture.

Our No. 3 Collection contains 8 packets for 25c, as follows: Bean, Beet, Carrot, Onion, Radish, Lettuce, Cucumber, Peas. The above sent post paid to any address on receipt of price. Our Handsome Illustrated Catalogue containing other great offers mailed free to any address.

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Sour Plums.

The uncounted thousands of dollars that within the last twenty years have been spent on fruit trees, almost, as we regret to say, to no purpose whatever, are a proof of the anxiety of the people of the west to grow, if possible, part at least of the fruits so attractive to every Canadian. Up till recently plums have had in Manitoba the attention of very few experimenters. Apples, a much more unlikely fruit to acclimate here, have had a hundred times more attention paid to them than plums, yet it is quite certain that had one hundredth part of the money wasted on apples been spent on plums there might to-day have been grown within our own borders all the plums we could want, and of a quality much higher than most people have any idea of. From among the chance seedlings of our native bush a dozen varieties could have been collected any time these last dozen years, that, by working either on their own roots as cuttings or by budding or grafting on ordinary seedlings, could have been multiplied indefinitely with ease and certainty. In the January issue of *The Farmer* the attention of our readers was shortly called to this point and a warning given that whatever might be the course proper to experiment stations here or elsewhere, the only prudent course for the every-day farmer was to leave such experimenting to the experts, whose proper business it is to attend to such matters, and meantime try to find in their own woods and river bottoms picked native plums to be marked and in due season propagated by means of root cuttings. A good deal has been said of late, on a very slender foundation of actual experience, about the bright possibilities in store for us as the outcome of experimenting with seedlings grown from selected natives found in the bush and afterwards cultivated at Brandon and elsewhere. But looking to the unvarying experience of noted experts outside of Manitoba, it would be very rash in any ordinary farmer to expect that out of any dozen seedling plums he could get by applying at Brandon, he would, after years of waiting, get one out of the lot that would be worth keeping alive. All our best knowledge along this line has come from the south, not from the east, and one grain of experience from that quarter is worth bushels of plausible theory, no matter by whom propounded. A dozen first-rate men might be named in Minnesota and Wisconsin who have worked on this very line for twenty years, and in Iowa, Professor Budd alone, a man of continental fame, has done more to clear up this question of plum production than perhaps any other man in Canada or the States.

What are the facts to begin with? If there is any one first-class named variety of native plum, out of about 100 already named and fully tested, that has been raised from seed, either naturally or by special pollenization, we have never heard of it, but would like very much to hear. Out of a little short of 200 named sorts reported on by Professor Goff, of Wisconsin, in his latest bulletin (Oct., 1897,) only three are specialized as seedlings, and others of proven value, such as *Rollingstone*, can be traced back to the creek whence they were taken thirty years ago. The *Aitken*, one of the very best and likeliest, was only taken wild from the woods at Brainerd, Minnesota, about three years ago, and introduced on the market, by budding, of course, in 1896.

Mr. Goff says quite plainly that plums do not come true from seed. Let us for our own instruction and warning turn back to the report of the State Agricultural Society of Iowa, 1865. It says the

"wild plum, when cultivated, or when grown from choice pits, becomes greatly improved." The benefit of cultivation no one can dispute, but let us hear what Professor Budd, now at the head of Iowa State Horticulture, says in March, 1898, 33 years after this first report.—"Seedling production is a slow and uncertain process of improvement, even when the seedlings come from methodic crossing of the blossoms. Propagating select varieties by budding, grafting or root cuttings is the speedy and sure way. This has been our plan for 18 years." So successfully in fact has this method worked in Iowa that the State will this year make its last distribution of native plums, best named sorts at \$10 per 100, relying on nurserymen to do all that is wanted on a business footing, as other plants are propagated and sold.

In Minnesota, from which a good few of our very best varieties of fruit have very wisely been brought, there is a number of good men working on exactly the same lines as are laid down by Prof. Budd, which are identically the same as were laid down in *The Farmer* for January. Mr. Luelloff, one of these growers, has one named seedling, but as yet very little is known about it, and if it were ever so good, one good sort out of hundreds grown by professional men, does not invalidate the advice then given by *The Farmer*. It only serves to emphasize the soundness of that counsel.

We understand that Mr. Bedford has already promised to give away a few seedlings from his plot, but is doing so on the distinct understanding that they may prove of little value. He means to test them at home before giving away any more. A very proper course in the circumstances. If he will at the proper season next fall have search made in the Red River Valley and on the Mennonite farms for a score of good native sorts, and take measures to work these on his seedlings, as well as by root cuttings, there is no doubt that in a few years we can have capital native plums in every farmer's garden. Even now choice southern sorts that may prove perfectly hardy are being offered by our nurserymen, and should be tried by those who have a taste that way. But if their very best sorts have been got from the bush by skilled collectors that is a strong reason why we should do the same thing for what we may find perhaps quite as good within reach of our own doors. "The eyes of a fool are in the ends of the earth," and the nearer home we can get the plums we want the cheaper they ought to be, and rather likelier to suit the climate we have to offer them.

The *Farmer* has gone thus fully into the plum question because two western horticulturists have thought proper to dispute in their local paper the advice offered on p. 32 of January issue. When they have anything further to say on the same topic we invite them to do it here, and shall be glad of any further light either from them or any other quarter.

The Hot Bed.

It will not be long until it is time to start the hot bed. Every farmer should have one. If you haven't one, set to work and make one. Many farmers have old sash lying around that would make good glass for a hot bed. Sometimes old storm sash can be obtained cheaply, and they answer well. Having selected your sash, make a frame to suit it. Any one handy with tools can make a good frame.

Some time before you are ready to use the hot bed, make up a pile of good stable manure (largely horse manure)

large enough to cover the entire bottom of the intended hotbed 18 inches deep. Let it heat a few days, then turn it over and let it heat another week. Now, make up a bed of this manure 18 inches deep, and a foot larger all round than the size of your frame; water, and tramp it down solid. Place the frame upon it and bank up around the manure and frame with more manure. On top of the manure in the frame put in five inches of fine garden mould, no matter if it is frozen; it will soon thaw out. If you can't get that, go to the woods and get some nice leaf mould. Put on the glass and allow the hot bed to work off its excessive heat. Place a thermometer in the soil and when temperature remains constant at 80° the ground can be got ready for sowing and the seed put in. If the temperature is too high, wait until it cools down or the plants will be burned out. Sow radishes and lettuce for the first crop; cabbage, cauliflower, tomatoes, etc., can come on for a second crop.

As soon as the sun's heat begins to warm up the bed and the temperature rises, it may be necessary to open the sash a little to regulate it. But this can soon be learned, and a great deal of pleasure and profit will be obtained from the hot bed.—*Farming*.

Plants by Mail.

After receiving plants through the mail, immerse them in warm water fifteen to twenty minutes, then carefully set in pots or cans previously prepared thus: After seeing that the pots and cans have holes sufficient to let surplus water off, place charcoal, small rocks, or broken dishes in, enough to cover the bottom well. Fill to within one inch of the top with dirt made of one-third well-rotted manure, one-third chip dirt, leaf mold or garden soil, and one-third sharp sand, well mixed. After placing the plant in the dirt a little deeper than it was before, water well and set away for a few days in a shady place sheltered from the wind. Make firm the soil around the roots of your plant before watering, then fill in with dirt where the water caused it to settle. Sprinkle four or five times daily with warm water, but do not give cold water until new growth starts, which won't be long if you received stout, healthy plants.—*Gentleman Farmer*.

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The "Chinook."

The north wind blows o'er the field and wood,

The earth is locked in frozen chains;
Where once the rose bush blushing stood,
Naught but the frozen stem remains.

All breathing creatures shrink and cower
Before the searching northern blasts,
Their strength abating hour by hour,
While yet the fierce tornado lasts.

But, lo! a change comes o'er the scene,
A curtain rises in the west;
The clear blue vault beyond is seen
Where gods await fair Jove's behest.

When at the sound of his command,
They raise the west wind to the sky:
Where, shorn of fierceness, o'er the land
Its balmy breathings eastward fly.

The north wind helter-skelter hies,
Afraid the western wind to meet;
In vaunting gusts, and heavy sighs,
He beats a straggling quick retreat.

All living things, revived and free,
Move on toward the sunny spots;
Where shortly, crocuses will be,
And tiny wild forget-me-nots.

E'en barnyard fowls, though almost dead,
Will venture forth to look about;
Now wond'ring at the life they've led
Shaking the straggling feathers out.

The snowbirds thro' the balmy air
Go whirling past like gleams of light;
The sunset's glory seems more fair,
As onward comes the solemn night.

—J. A. Rowland.

Beausejour, March, 1898.

Farm Book-Keeping.

The following interesting paper by Mr. Robert Wemyss, Reaburn, we commend to the consideration of our readers. It is well worthy of careful attention:—

There has been a good deal of discussion in the columns of our local papers as to the cost of making butter, and as in most problems of that kind, where figures are depended on for results, there is much diversity of opinion, as those results so much depend on what are considered items of cost. One man makes the cost 10c., another 12c., and so on, until some get as high as 20c. per lb. Whatever may be said on this subject, it is quite clear that 10 to 12 cents leave no profit on production, yet so long as the supply of butter during summer months exceeds the daily demand, and the hot weather renders sales imperative, the dairy farmers must sell for what the buyers choose to give, or run the risk of their butter spoiling and being unfit for consumption. It is, however, not merely the cost of the butter production that should interest farmers, but the cost of all farm produce, and as few farmers are guilty of annual balance sheets, it may be neither uninteresting nor unprofitable if some attention is drawn to the necessity of their knowing how they stand financially at the close of each year. I am satisfied that for the farmers themselves it would be advantageous, as I am equally satisfied that if their balances were made up on the same system as is in vogue with business houses, there would be more care as to the manner of running their farms.

It is a common saying that the world owes a living to those living in it and who are able and willing by their industry to work for it. This may be true or not, but there cannot be any dispute as to the right of workers to fair remuneration for their labor. The question then is what is fair remuneration for labor, and such labor as is usual on a farm? While farm

labor cannot be classed as skilled labor in the same meaning of what is credited to skilled mechanics, yet it requires a special training and considerable time to acquire, and in fact very few, who have not been bred on a farm, do acquire the knack and aptitude required for handling horses and cattle so as to insure the best results. Now, to arrive at some idea of what is fair remuneration for labor, we must look at what has to be provided out of it for the laborer. There are three essentials which all workmen of whatsoever grade must furnish out of their wages—food, clothing and lodging; the first to sustain the physical frame, and maintain the power of labor; the next to clothe the body and preserve the health; and the other as a home and rest for the wearied frame, and to recuperate for additional labor. Those are the essentials for the animal man, but the educated and intelligent have higher aspirations; their feelings and sentiments revolt against living a life little better than the beasts, and consequently their demands are higher, and their remuneration must be such as to permit the gratification of these sentiments. If, then, we place the remuneration to farmers between unskilled and highly skilled labor we may approximate to an average so as to arrive at a fair conclusion.

Let us now try to approximate the cost of running a farm and the results of doing so. Taking a farm of 250 acres, of which 125 are ready for crop, and the balance chiefly fit for pasture, and on which the stock is 45 head of cattle, young and old, and ten horses, of which seven are used for the plow. The cost of this farm was \$5.00 per acre, say:

Farm land, 250 acres, at \$5 per acre	\$1250 00
Breaking, backsetting, etc., 125 acres, at \$5.00	625 00
Fencing 200 acres, say \$1 per acre	200 00
Dwelling house, frame, \$1500....	1250 00
Milk house	100 00
Stables, 24x50, 18x24, 12x14....	750 00
Granary, etc.	300 00
Horses, 10, farm; cattle, 45, all ages	1625 00
Implements, wagons, separator, harness, hay fork, etc.	600 00
Total capital in farm	\$8700 00

We have thus a capital of \$6,700, which has been expended upon, land, buildings, stock, etc., and which, if invested in good securities at 7 per cent., would yield an income annually of \$469, neither subject to depreciation, nor tear and wear, as buildings, implements and farm furnishings are, nor dependent upon the changes of the weather and other matters which farming is subject to. Another serious consideration is that with even a small independent income the farmer and the other members of the family are free to undertake separate work in the town or city. Now, suppose that the family consists of the father, two sons, the mother and daughter, the two latter to manage the house, the three male members are free to work, and at the lowest calculation could make together \$20 per week in the city or town, or say \$1,000 per annum, thus making, with the interest on capital, an annual income of \$1,469.00, and free from responsibility, worry and anxiety. But educated, intelligent and trustworthy, as the farmer and his sons are likely to be, their wages would be much higher than those paid for mere brute strength.

But let us try to approximate the returns from the farm of 250 acres, of which 125 acres have been prepared for crops, thus distributed, viz., 50 acres in wheat, 50 acres in oats, 25 acres in barley.

Dr.

Seed wheat, 100 bush. at 80c. per bushel	\$ 80 00
Seed oats, 150 bush. at 35c. per bushel	52 50
Seed barley, 75 bush., at 40c. per bushel	30 00
Binder twine	20 00
Threshing 900 bush. wheat, 1,500 bush. oats, 750 bush. barley..	103 50
Expenses of threshing gang, 2 days	10 00
Wages to two sons at 50c. per day, or say \$15 per month..	360 00
Board, at 30c. per day	210 00
Sundries for outlays, repairs, oils, ropes, insurance, medicines, etc., say	25 00
Taxes	21 00
Depreciation on buildings, implements, etc., at 10 per cent....	300 00
Interest on \$6,700 at 7 per cent..	469 00
	\$1699 00

Hay, bran, etc., are not charged here, but are squared in the credits.

Sales and Other Credits—

Wheat, say 900 bushels, or 18 bushels per acre, at 60c.	\$540 00
I assume 60c. as the sort of normal price of wheat.	
Oats, 1500 bushels, less used for horses, say 300 bushels, at 25c.	75 00
Barley, 750 bushels, at 30c.	225 00
Butter, from 12 cows, say 2,000 lbs., at an average price of 15c. per lb.	300 00
N. B.—No wages nor sundries charged against this item.	
Beef cattle sold, 6 at \$27.50	165 00
Calves from cows, 15 at \$5.	75 00
Potatoes, say 150 bush. at 20c..	30 00
	\$1410 00

Hay stacked, 150 loads, but not charged in the debits against feed.

It will thus be seen that the debits exceed the credits by \$280, and that there have been no charges made for wages in milking, churning, and making of butter, and no charge for butter paper, freights, etc., which, added to the shortage, would make it \$400 at the lowest. It is true that many may say that the charges for depreciation on buildings, etc., are not usual, and that no farmer thinks of charging interest on capital. But will any one tell me that if I pay \$90 for a new wagon I could, if necessary, re-sell it at the close of the year for the same sum; or that if I required capital any loan company would let me have it without paying interest. Why, then, should interest not be charged against the farm, if, by investing in another security, it can be obtained. In all properly conducted commercial businesses interest is charged on capital and debited to profit and loss account; and at the close of the financial year a statement is prepared showing the value, market value, of assets at that date, and the amount of liabilities. It would be a profitable thing for many farmers to follow the example of commercial firms, even although the assets and liabilities are in much smaller compass. I send you, Mr. Editor, the foregoing in the hope of promoting discussion through your columns and drawing the attention of farmers to the necessity of knowing their financial positions. In many cases it would assist in controlling expenditure, and sometimes heedlessly incurring obligations which hamper the obligants for years.

Men and medicines are judged by what they do. The great cures by Hood's Sarsaparilla give it a good name everywhere.

The J. I. Case Threshing Machine Co.

Establishing Offices and Warehouse in
Winnipeg—A Great Acquisition to Win-
nipeg's Business Houses.

A flutter of excitement was caused among Manitoba machine men by the account of an interview with Mr. Frank K. Case, President of the Company, which appeared in one of the daily papers, to the effect that the J. I. Case Threshing Machine Co. had appointed Mr. D. B. Macleod, of this City, to the position of General Agent with the Company for Manitoba and the West, with headquarters at Winnipeg. Mr. Macleod is well and favorably known to the trade and the general feeling is one of satisfaction at Mac's outlook, and the Company are to be congratulated on securing the services of

J. I. Case Threshing Machine Co. in the Canadian West, the Dakotas and Minnesota is in itself a very strong guarantee that their goods are in line with the times and up to the standard of excellence, for which they have world-wide fame.

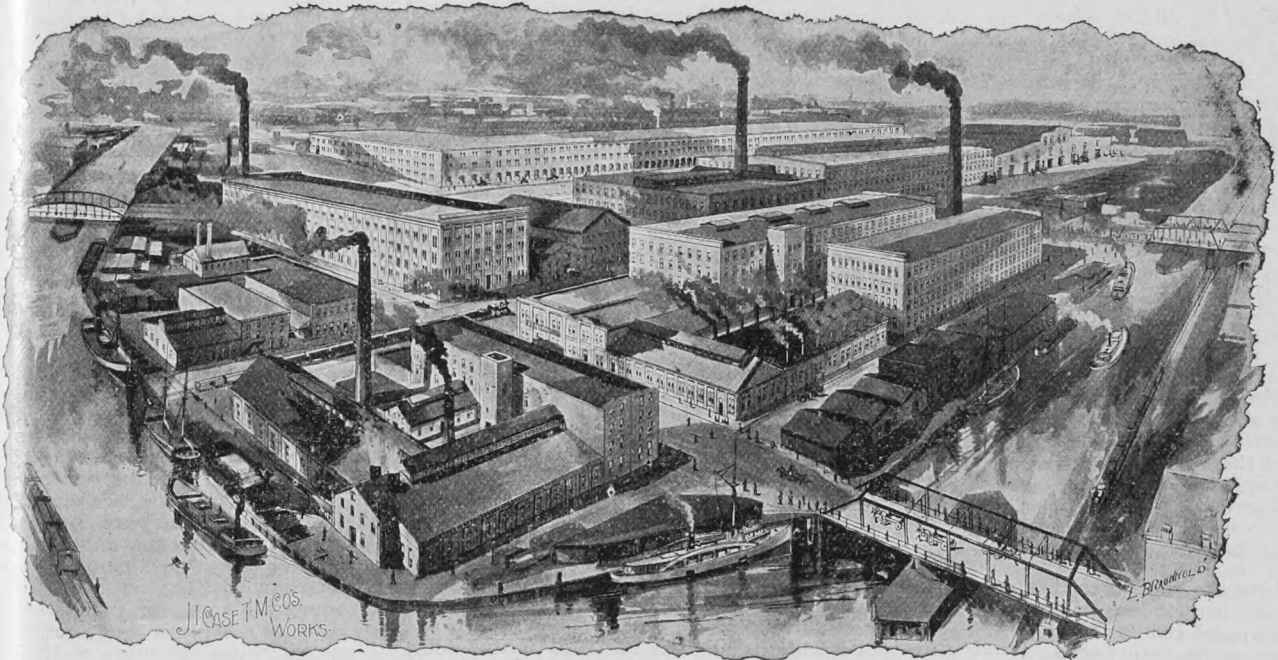
A Brief History of Racine's Greatest Manufacturing Plant.

The illustration on this page affords but a faint idea of the size of the works of the J. I. Case Threshing Machine Co., at Racine, Wis. What is now the most extensive Threshing Machine Factory in the World was started by Mr. J. I. Case in the winter of 1842-3, and since that time its land requirements for manufacturing purposes has increased from a village lot to 40 acres; its shop capacity from a space less than an ordinary grocery store to floor room measured by square miles; from a township reputation to a business connection with all the grain growing countries of the Earth. Also

spring of 1843 Mr. Case rebuilt and remodelled his machine after patterns and plans of his own and upon testing it found that he had improved upon the original machine brought from the east. In the winter of 1843-4 Mr. Case built a machine from his own plans and models, which threshed and cleaned the grain at the same time. This machine being the first of the kind ever built in the west, created such a demand for them that he turned his attention wholly to the manufacture of them, and as the original machines, like those of to-day, were built strictly on honor, the demand for them so increased that in 1849 Mr. Case erected his first shop, which proved the first stepping stone to the future era of substantial development.

Facts to Threshermen and Farmers.

Great progress in perfecting threshing machinery has been made by the J. I. Case Threshing Machine Co., of Racine, Wisconsin, this season; and the late improvements made in their already almost perfect Threshing Machines, Self-Feeders, Wind-Stackers, Elevators, Bagger, Swing-



Works of The J. I. Case Threshing Machine Co., at Racine, Wis.

tried and trustworthy a representative. Mr. Macleod is at present in Racine, Wisconsin, the headquarters of the Company, arranging necessary details for continuing the business of the Company, on a larger scale. Before leaving the City he let the contract to Mr. McDermott for a up-to-date suit of offices. These offices will be situate in a portion of the large brick building corner Princess and James, formerly occupied by R. Cochran & Co., and the balance of the ground floor is being fitted up with a plate glass front and otherwise improved, and will be used as a show room for the proper display of the Company's goods. A number of Winnipeg contractors are now figuring on a large storage warehouse for the Company. It will be 100 feet square and be supplied with derricks and every convenience necessary for the proper handling of their Threshers and Engines, and will be located on the transfer track. The long and extensive experience of the

from the manufacture of 50 machines and tread powers per year, to a daily capacity of 12 Threshers, 3 Engines, 12 Horse Powers, 6 Swinging Stackers, 2 Saw Mills and all their attachments. The J. I. Case Threshing Machine Co. is preeminently the most important industry of Racine, it is also the largest establishment of its kind in the world.

Nearly 1500 men are employed in the immense establishment which covers 40 acres of ground. The pay roll exceeds \$35,000.00 per month, a further idea of the immensity of this giant among factories may be obtained from the following figures:—50,000 tons of iron, 5,000,000 feet of lumber, \$75,000.00 worth of belting and \$75,000.00 worth of paint are annually used in construction. They use \$17,000.00 worth of postage stamps in one year.

Hen. J. I. Case, the founder of this immense establishment, was born in Oswego Co., New York State, in 1819, and came to Wisconsin in the Spring of 1842, with six threshing machines he bought on time. Reaching Racine, then only a straggling village, Mr. Case disposed of five of his machines, retaining one with which he threshed all the season. In the

ing Stackers, Traction and Portable "Simple and Compound" Engines and Woodbury Sweep Powers, has placed them far in the lead of all competitors, and will thresh and save more grain, better, and with greater economy than ever before.

Their Horse Power Rig—consisting of the Agitator Separator with Bagger and Tip Wagon Elevator, Swinging Stacker driven by their 8, 10, 12 or 14 Horse Woodbury Sweep Power has a capacity almost equal to a steam power rig of the same size and is a money maker—with horses so cheap.

Their Steam Power Rig, consisting of the Agitator Separator with Self Feeder, Telescope Weigher, Wind Stacker, driven by their Center or Side Crank, Simple or Compound Traction Engine, makes a most complete automatic threshing outfit with immense capacity for separating and cleaning all kinds of grain and seeds.

Anyone contemplating purchasing a Thresher or Engine or at all interested in threshing machinery should write at once for information, prices and their illustrated catalogue.



At Four-Score.

She sits in the door at sunset,
And turns her dim old eyes
Up toward the shadowy hillside,
And then toward the evening skies.
"They are late," she says, and listens,
With her knitting on her knee,
"It is time for the children's coming,
Where can the darlings be?"

She hears a sound on the hill road—
"Ah, they're here at last!" she cries;
And the light of a mother's welcome
Shines in her faded eyes.
"You've been gone a long time, children.
Were the berries thick, my dears?"
She says, as gathered about her,
Each radiant face appears.

She hears the merry voices
Of the dear ones that are dead,
As she straightens out the tangles
On each shining little head—
The chattering, childish voices,
That seem to her to hold
A music sweeter than any
This side the streets of gold.

She listens to eager stories
Of what they saw and heard—
Of a nest in the blackberry bushes,
And a frightened mother-bird;
How Johnnie fell, and his berries
Were lost in the weeds and moss,
And Mary was 'fraid, and dreaded
The brook they had to cross.

So, while the night is falling,
She sits with the children there,
Forgetting the years that vanished,
And the silver in her hair.
The love that will last for ever
Brings back her dear ones dead,
And the heart of the lonely mother
With her dreams is comforted.

Ere long she will go to that country,
Where her loved ones watch and wait
For her, and I think of the meeting
There at the jasper gate
She will feel their welcoming kisses,
And hear her husband say,
"The long, long parting's over—
We are all at home to-day!"

—Eugene Kingsford.

Prize Competition for Ladies.

The Nor'-West Farmer will offer monthly, for the present, a handsome Fancy Leather Purse, with name printed thereon in gilt letters, to the competitor who sends us by the 20th of each month the most instructive letter on any topic suitable for our "Household" readers. Competitors must be females, and on the top left-hand corner of the envelopes containing the letters must be written the word "Household." The prize will not be awarded to the same person twice. Address, The Nor'-West Farmer, Box 1310, Winnipeg, Man.

This month's Household Competition has brought out a host of ladies. Taking all things into account, the three papers placed highest may be taken as of nearly equal merit and highly creditable to their writers.

Wall Paper

....and Room Moulding

The largest and most complete stock in the West. Samples and prices sent on application. State the rooms you wish to paper and prices you wish to pay. Special attention to mail orders.

R. LECKIE,

2208

425 Main Street, WINNIPEG.

The Bright Side of Farm Life.

By Mrs. F. A. Sanford, Virden.

Too much fuss is being made nowadays over the "overworked farmer's wife," until a great many of our number begin to think there must be something in it, since everyone says so.

There are always two sides to everything, and if we make up our minds to see the brightest side only, it is wonderful how the shady side dwindles to a little streak, till we almost forget there is any.

What if we do get up early in the morning? We feel the benefit of it in the fuller and freer coursing of our blood through our bodies, invigorated by a good night's rest in purer air than our city friends ever breathe. Why, the chance for a hurried glimpse out of the window at that glorious sunrise, while we make the breakfast, would alone repay us for the loss of that nap, that, however much we like it, isn't really half so beneficial as this hustling around to get breakfast and the milk cans ready. What a hearty appetite we bring to the table. How bright and alert we feel, and a good start means everything to the busy housekeeper. Then, think how much our children are our own out on the prairie. We can guard them from evil associates and can mold their young natures in the right direction so much easier than the city mother, who has so many evil influences counteracting all her endeavors for the welfare of her little ones. While so many of the husbands in the city spend their evenings at the club, street corner, or saloon, we have ours right with us. How the children enjoy a romp with papa after tea and chores are over; and what a chance for a cosy chat we have together when the little ones have gone to bed. How free of care and worry we may be, if we would but think so, in comparison to the wife of the mechanic, who is always dependent on the trend of trade. A slight commercial depression may throw him out of employment, and what of the home and the nestlings then? Too few are able to lay up much for an emergency, and want soon stares them in the face. With the farmers how different. True, we do not keep up much style; we live more simply, and so enjoy better health. In most cases, even a very poor crop provides enough to keep all in comparative comfort, and if we have been wise enough to keep out of debt, we tide over our difficulties without much worry, as we raise most of our necessities ourselves. The luxuries we can dispense with, at least until we can afford them.

I would advise all farmers' wives who don't have a flower bed to put one in this spring. So many can be raised with little labor, and flowers have such a charm for old and young. In the hot summer days, when work seems so plenty a few minutes in my flower garden freshens me up as nothing else will.

There is no reason why farmers' children should be stamped country-bred, if we give them the chance they have a right to demand from us—a good, sound education, free access to good reading, and pure moral atmosphere at home. Have music, if you can possibly afford an instrument. Let the boys have the Youth Companion, the girls will like it, too, and it will be immensely to their advantage they never read a word of the sentimental trash that at present floods the literary market. Have some good magazines, a good family newspaper, if you can afford it, and read yourself. I know many will say, "How can we?" but the fact remains we must or lose our influence. We must preserve our standard of intelligence and command the respect of those keen-eyed boys and girls.

Were our farm homes made more attractive, more study given to making them the brightest place, where read sympathy with their various hobbies would be found, fewer of our boys and girls would leave the farm for the work shop and the sales-counter.

A house need not be a mansion to be a home, and the housewife's deft fingers may add many artistic little touches to an otherwise plain room. Young people love beauty. Let us make our boys' and girls' rooms our special care. Let us make them sweet and pure, so that the will be ashamed to come into them with impure thoughts or actions. Surroundings make so lasting an impression on the young that it is imperative they should be of a refining character.

I am sketching out more work for the farm housekeeper instead of less, but I venture to say, if any of us mothers believe that a little more planning, a little more using up of the odd minutes to good advantage is going to make the world a brighter place for our children and home the brightest of all, we would none of us begrudge the effort.

Let us, then, repudiate the overworked idea; work for those we love instead of being drudgery is a blessed privilege. Let us thank God for the blessings we enjoy, and keep our thoughts persistently on the bright side, if we want our homes to be happy ones.

To get money without work has made all the thieves.

The lofty tree is seldom measured till it is down.

YOU CAN'T DO WITHOUT IT

If you are going to furnish your home—our big Catalogue—containing over 300 illustrations. Mailed free.

SCOTT FURNITURE CO.

Wide Awake House,
WINNIPEG.

'Mother's Comfort.'

I know a little girlie,

With loving eyes so blue,
And lips just made for smiling,
And heart that's kind and true.
She wears no dainty dresses,
No jewels does she own,
But the greatest of all treasures
Is her little self alone.

Her name is "Mother's Comfort,"

For all the livelong day,
Her busy little fingers
Help mother's cares away.
The sunshine loves to glisten
And hide in her soft hair,
And dimples chase each other
About her cheeks so fair,

Oh, this darling little girlie,
With the diamonds in her eyes,
Makes in mother's heart a sunshine
Brighter far than floods the skies.
But the name that suits her better,
And makes her glad eyes shine,
Is the name of "Mother's Comfort"—
This little treasure mine.

The Policy of Tongues, or How We Should Govern Our Speech.

By a Subscriber's Wife, N.W.T.

For the sake of our home lives alone it is most important that we learn to control our tongues. Did we indulge in scolding, grumbling and faultfinding; did we retort every irritating or impatient word with one still sharper, what a perfect pandemonium home would sometimes be! And has not nature, too, most prudent of law givers, placed double guard over the little unruly member which is the organ of speech.

While it is not given to many to speak well and wisely on every occasion, to drop pearls at every word, it rests with each and all, the brilliant and learned, the illiterate and dull, the least and greatest, to cultivate a right and charitable frame of mind, a spirit that breathes good will to others, of which our speech should be the outward expression.

In the first place, we should always endeavor to speak the truth with charity; but if we would speak charitably, we must also think and feel charitably. How often we denounce and condemn others, forgetting that had we the same weak nature, the same lack of judgment or common sense, or had we been exposed to a similar temptation, we would, in all probability, have acted in precisely the same manner. There is nothing so delightful as the hearing and speaking of truth; but there are many unpleasant truths told out of pure malice, rather than for the sake of the truth itself. Important as it is at times to speak, it is often just as important to preserve a judicious silence. Lord Bacon said, "Discretion of speech is more than eloquence." As a rule, those who say but little obtain credit for knowing a great deal more than they do. Some will chatter away incessantly, about anything or nothing, till one quite agrees with the Irishman in thinking their tongues might be glad when they are asleep, for they seldom get a moment's rest while they are awake. The habit of speaking out one's mind upon every occasion is by no means always wise, and is often the very essence of rudeness. If we can say no good of anyone, let us keep silence, since we are conscious of many shortcomings of our own, and know that criticising faults will not cure them.

We should be sincere. Insincerity soon shakes all faith in human nature; and at

the present time, when falsehood, or, as it is sometimes politely called, exaggeration, is so alarmingly on the increase, when so much of what is said must be taken at a liberal discount, it behooves all truth-loving people to mean what they say. In conversation we should have regard for people's feelings, should be tolerant of their views and opinions, should speak to interest them and draw out their good qualities rather than display our own powers or learning. Wit, jest, and repartee all add zest to conversation, and make it a delight; but better never make a joke, unless we are sure it will be taken in good part, than to do it by wounding some sensitive spirit. Slang, vulgar phrases, and meaningless expletives should be avoided. They are marks of uncultured minds and unrefined tastes. Ridicule and sarcasm are dangerous weapons, and should be handled with care. If we would convince another of an error, better employ tact and caution, else we only kindle resentment, and thus defeat our own ends. Nor should we descend to frivolity or flippancy. Loquacity is to be deplored, unless coupled with good sense and intelligence. The reason sometimes given that people who talk on trifles talk so fluently is that the tongue is like a race horse and the less weight it carries the faster it goes. While the conversation of the best bred people is about things rather than people, it is, of course, no harm to speak a word of encouragement or commendation of or to anyone, and when prompted by sincerity, and devoid of any flavor of slikeness or flattery, it is a graceful thing to do. Evil speaking and gossiping should be shunned as a pestilence. Those who seek to pick holes in the character of others by gross misrepresentations, by cowardly insinuations, they dare not utter in their presence, by spreading reports they know are not true, should remember they betray in themselves an evil disposition, a littleness of mind and nature, a "leprosy of soul" that is enough to make angels weep. Such people never think nor care what harm they do. They are a sort of disturbers of the peace that are out of the reach of legislation.

Lastly, we should guard the good name and character of another as we would wish others to guard our own. To listen, to smile, or look approval upon any thing which detracts from another's character, without contradicting, when we know it to be untrue, is to become a participant in the mischief. This is surely one of the occasions which Solomon meant as "a time to speak."

Domestic Helps in Emergencies.

By A. M., Winnipeg.

Seeing the notice about the prize competition for ladies, I thought I would send the following household helps, which may be useful to some farmer's wife situated far from a doctor. It may be of interest to many to learn that we have in our homes a valuable collection of medicines and remedies, and that these are to be found in our kitchens. There are so many condiments pertaining to the household which are really valuable, and which may so readily be utilized, particularly in cases of emergency, and where one is far from a doctor, as so many are in this large country of ours. In the first place where there is a family of young children, it is a safe plan in winter to have a kettle of hot water on the stove and a good fire on when retiring, so if an attack of croup or convulsions or a high fever comes on, it will be ready, and may save a life. For croup, a cloth wrung out of hot water

and applied round the neck has with my children proved a great relief. For a child in convulsions the best plan is to put the child in hot water as soon as possible and keep it until the convulsion has passed off, placing a cloth wet with cold water to the head. Add hot water from time to time as the water cools. Ordinary cases of convulsions do not last long, and generally come when a child is teething. I have sometimes given a pinch of salt in a teaspoonful of water and opened the mouth gently with my finger. The best plan is to try the heat of the water by dipping the elbow into it. A child's body can stand about the same heat as the elbow; the hand is too deceptive. Hot water is one of the best things to apply to a sprain, and as hot as can be borne is all the better. One of the next most useful remedies is mustard. It is a very active emetic when stirred into a cup of warm water, a teaspoonful heaped to a small teacup. Its harmlessness makes it safe to repeat in a few minutes, if necessary. It is thus very useful in cases of poisoning. But it is in the shape of an old-fashioned mustard plaster that it finds its greatest field of good. There are two ways of preparing a mustard plaster. Where the effect is desired quickly it should be made of pure mustard and hot water, without any flour or meal, and covered with a thin piece of old muslin laid next to the skin. It will always give timely warning for removal, as it begins to bite at once. As soon as the smarting becomes uncomfortable and the skin very red, it will be time to remove it to some other spot. Where there is no haste, as in cases of deep-seated pain or chronic ailment, it is better then to add to the mustard at least one-half flour and some white of an egg. Pepper, salt and spices may be used as other than mere condiments. An excellent gargle for a sore throat can be made by mixing a teaspoonful of salt $\frac{1}{2}$ cup of vinegar and water, and adding a good sprinkling of black pepper. Spices, especially cloves, cinnamon and allspice, mixed with flour, can be used for sick stomach in children. A good plan is to take a tablespoonful of each spice, put them in a flannel bag and dip in hot vinegar; apply below the breast bone and cover with a dry cloth. The same vinegar can be used twice when the bag becomes dry or cool. Hops also make a good poultice for pains in stomach and for toothache by putting a handful of dry hops into a flannel bag and put them on the stove in a pie plate with a little hot water. When hot enough, then apply to the part affected. For toothache in children I have found that to put the side that is aching on the hop bag and cover them up well, they would soon go to sleep and waken up better. The aroma of the hops seems to have a soothing effect. Often to fill a cavity of a tooth with a paste made of flour and pepper will cure a toothache.

Baking soda and flour mixed together makes a splendid paste for a burn. Lard also mixed with flour is good. Salt and lard mixed together is a good plaster for neuralgia.

These are a few uses to which we could put our household helps in cases of emergencies.

C. D. R. writes on "Home" as follows:—Home is just what we make it; so we should try and make it as comfortable as possible, both for ourselves and all who come within reach of it, by keeping it pleasant and cheerful. Many homes would be more happy if the troubles of life were kept within them instead of publishing them among the neighbors, only to be laughed at. I think those who try find it pays to make home as pleasant as possible. With God's help build your own

quiet world, not allowing your dearest earthly friend to know of aught that concerns your domestic peace. If your troubles grow burdensome, he is a selfish man who will not sympathize with and do his best to help you.

Victoria C. Logan, Stonewall, writes on "Sunshine." We are now looking forward to the warm summer days; everything, trees, shrubs, flowers, and even insects, seems to understand that warmer days are approaching. I never think of summer sunshine without thinking of being cheerful. We need sunshine in our lives; cheerfulness of disposition. A little girl was once eating her dinner, when the golden rays of the sun fell upon her spoon. She put the spoon to her mouth, exclaiming, "O! ma! I have swallowed a whole spoonful of sunshine." One little boy I read about, when asked by his mother what made him so sweet, replied: "I dess when God made me out of the dust, He put a little thugar in it." Now, let us try to live lives of sunshine and sweetness; an ill temper, a discontented mind or an envious disposition are to be avoided. See if you cannot in the future days be contented, cheerful and happy. Look around you, and, having determined to live cheerfully, see if there is not some one you can help, some kind word that may be spoken by you to cheer and encourage another. The usefulness of our lives will largely depend upon the sunshine we carry about with us. The cheerfulness of our disposition, the kindliness of our nature will reflect itself upon others and influence them.

"Colinette" sends us this very neat little paper on "Girls and Dressmaking." Every girl should finish her school course with a few lessons in dressmaking, whether she can afford to have her dresses made by a dressmaker or not. If she has the time to spare, six months, or at least three, should be devoted to learning how to clothe the body in suitable raiment, for it is certainly one of woman's first duties to dress as well as she can. It is so much easier to make or make-over articles of dress after one has had even a short course of dressmaking, that all girls would do well to try and learn it, for thereby much time and trouble are saved. And then the household expenses would be lessened, which is no small item to a girl who has to make her money go as far as possible, and what a help to her mother she would prove, especially if the family should happen to be a large one. Ill-fitting dresses are rather common, and though to remedy that it would take a long course in dressmaking and much study and perseverance, still small defects could easily be altered and the appearance much improved thereby, and surely every woman cares something for her appearance.

Suppose the fish don't bite at fust,
What be yew goin' tur dew?
Chuck down yewr pole, throw out yewr bait
An' say yewr fishin's threw?
Uv course yew hain't, yewr goin' tur fish
An' fish an' fish an' wait
Until yew've ketched yewr basket full,
An' used up all yewr bait.

Suppose success don't come at fust,
What be yew goin' tur dew?
Throw up the sponge an' kick yewrself,
An' go tur feeling blew?
Uv course yew hain't, yewr goin' tur fish,
An' bait an' bait agin;
Bimeby success will bite yewr hook,
And yew will pull him in.

Household Recipes.

By Nor-West Farmer Lady Readers.

Before frosting a cake, rub the top over with flour to prevent the frosting from running down the sides.

Butter may be preserved in quantities in the following way: Wrap the rolls of butter in a cloth and pack in a jar, pour over them a cold brine made of 6 quarts of water, 1 quart of salt, a teaspoonful of saltpetre, 2 tablespoonfuls of sugar, all boiled together for five minutes. Keep in as cool a place as possible, and the butter will retain its original sweetness.

A warm knife will cut bar soap without crumbling it.

Anybody can make their own varnish cheaper than they buy it by taking of resin one pound and boiled oil one pound, melt, and add two pounds of turpentine and mix well.

If a thread be pulled out of each side of a lamp wick the latter will never stick in the burner.

Yeast that has begun to sour may be sweetened by adding to it two teaspoonfuls of sugar to each cupful. Let it stand over night, and in the morning it will be as good as new.

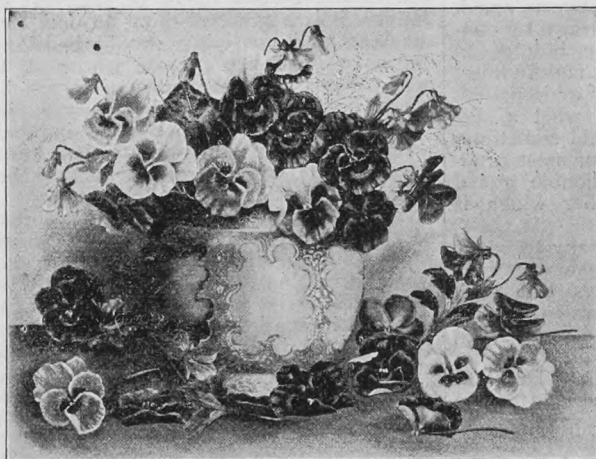
Strong vinegar can be used in place of cream of tartar in cooking with equally good results.

The best way to renovate feathers from a pillow is to put them in a barrel of soap suds. They should be shaken under the water after thoroughly washing them in two or three barrels of suds. Rinse them thoroughly, spread them on a clean sheet on the floor in a small, warm room after ringing them thoroughly in cloth to extract all the moisture that can be taken out in this way. Leave them over night to dry on the sheet; then move them to another, beat them with stick, tying a veil over the face and head to prevent breathing the fluff of the feathers. —C. D. R.

Cookies—One egg, 1 cup of sugar, 1 cup of butter, 1 cup of cream, 1 teaspoonful of soda, 2 teaspoonful of cream of tartar.

Lemon Pie—Four eggs, 2 cups of sugar, 2 cups of milk, 2 tablespoonfuls of cornstarch, 1 lemon for one pie. —Mr. Walter Eggleton, Holmfild.

To Make Yeast—Peel and boil half an iron kettle of potatoes in a goodly quantity of water until well cooked; drain the water off, keeping same. Mash the potatoes, pour the water back on them and stir, which will form a soup. Have ready a three-gallon crock, into which press through a cullender. Put two quarts of boiling water into the pot, set on the stove and let it come to a boil. Now take two cups of flour, one cup of salt



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Georgetown, Ont.

wet up with cold water, and pour in little, carefully stirring to keep from curdling, and put through the cullender to the crock. Let the mixture stand in milk warm. In the meantime put to bake in two or three cups of warm water yeast cakes, one cup of sugar. When baked stir in the crock and let stand in warm place to rise.

To Make Bread—Take half your usual quantity of warm water, the other half yeast and a small handful of salt, and flour enough to make a stiff dough. Cover, and set in the riser till it has risen, which will be an hour and a half. Knead down once and let rise again. Make into loaves; let stand till light enough for the oven, and bake. The time required to make bread from start to finish, will be less than six hours, if rightly managed.

The Raiser—Take an empty apple bar-

To clean looking-glasses, remove the fly-stains and other soil with a damp rag. Then polish with woollen cloth and powder blue.

To keep flannels from shrinking, the first time of washing put them into a pail of boiling water and let them lie till cold. **Fig Pudding**—Quarter lb. of cut figs, 6 oz. of bread crumbs, 5 ozs. of suet, 6 ozs. of sugar, 2 eggs, a little flour, the rind of a lemon; mix together and steam three hours.

Cocoanut Cakes—Three cups of sugar, 1 cup of butter, 1 cup of milk, the whites of 3 eggs, 3 cups of grated cocoanut, 1 teaspoonful of baking powder, and 4 cups of flour; mix all together and bake in a quick oven.

Boiled Rice Pudding—Soak 4 ozs. of rice in water half an hour, then 4 ozs. of raisins, 1 egg and half a cup of sugar:

The Little Green Heap.

That little green heap,

It is buried away

In my heart's inner keep,

Where its memories stay;

Brightest blossom was she,

That the Reaper could reap;

Oh I bend on my knee

At the little green heap!

Then I fancy I hear,

Coming up from the deep,

Little lisped words, that stir

All my pulses to leap;

I imagine I feel

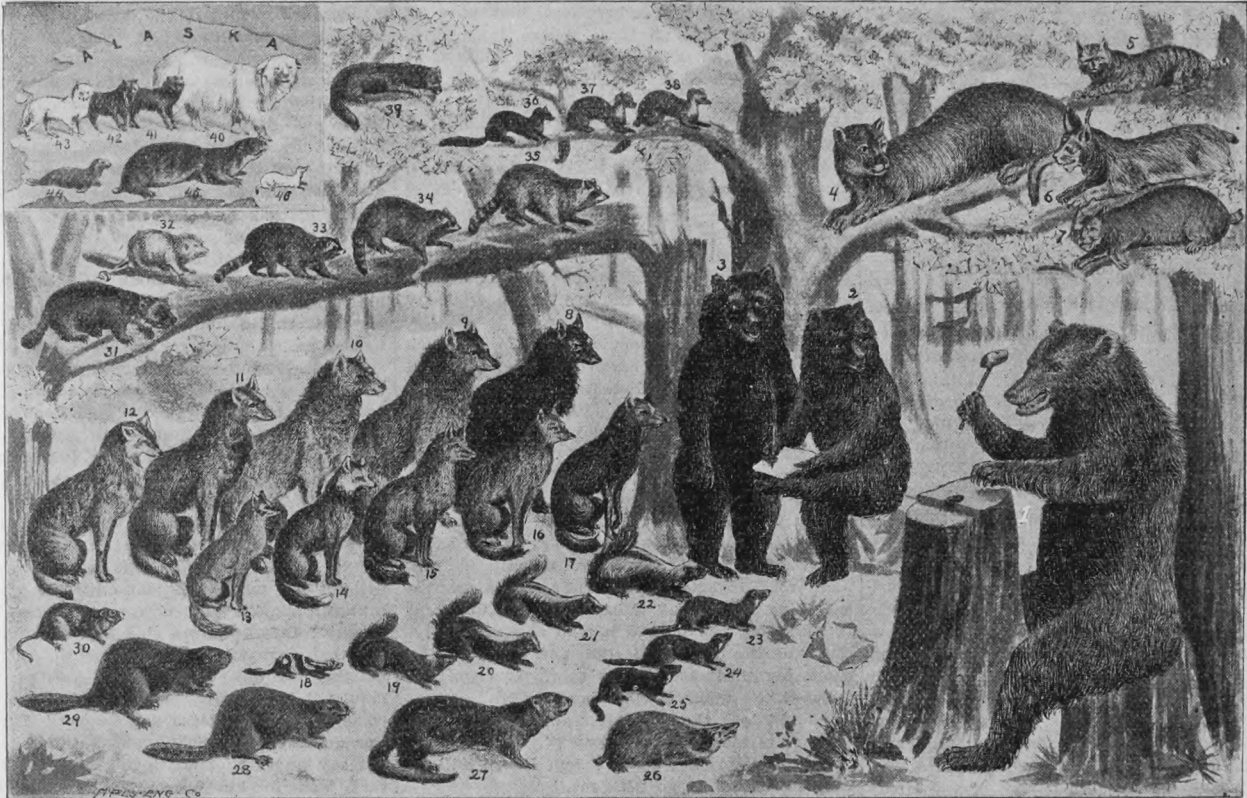
A wee arm round me creep,

And sweet kisses up steal

From that green little heap!

And I cry, "Baby mine,

Come again, I am sore,



Fur Bearing Animals of North America.

(Entered according to Act of Congress, 1897, by W. J. Burnett, Manager Northwestern Hide & Fur Co., Minneapolis, Minn., in the Office of the Librarian of Congress, Washington, D.C.)

This illustration shows one or more of each species of Fur Bearing Animals of North America whose fur has a market value.

- | | | | | | | |
|-------------------------|-----------------------------|---------------------------------------|----------------|-----------------|-------------------|----------------|
| 1. Grizzly Bear. | 9. Dark Timber Wolf. | 17. Dark Silver Fox. | 23. } Minks. | 30. Muskrat. | 36. } Martens. | 41. Blue Fox. |
| 2. Brown Bear. | 10. Light Timber Wolf. | 18. Civet Cat or Small Striped Skunk. | 24. } Badger. | 31. Wolverine. | 37. } Opossum. | 42. Black Fox. |
| 3. Black Bear. | 11. Brush Wolf. | 19. } Skunks. | 25. } Otter. | 32. } Raccoons. | 38. } Fisher. | 43. White Fox. |
| 4. Cougar. | 12. Prairie Wolf or Coyote. | 20. } Skunks. | 26. } Beavers. | 33. } Raccoons. | 39. } Polar Bear. | 44. Seal. |
| 5. Wild Cat. | 13. Kit Fox. | 21. } Skunks. | 27. } Beavers. | 34. } Raccoons. | 40. } Polar Bear. | 45. Sea Otter. |
| 6. Canada Lynx. | 14. Cross Fox. | 22. } Skunks. | 28. } Beavers. | 35. } Raccoons. | 41. } Polar Bear. | 46. Ermine. |
| 7. Bob Cat or Bay Lynx. | 15. Red Fox. | | | | | |
| 8. Black Wolf. | 16. Woods Gray Fox. | | | | | |

rel and saw in the lower half two or three staves out of it about 12 or 14 inches in length; fasten the pieces together with the bit of hoop you will have cut; put two leather hinges on and secure to the side of the opening, and your door is complete. Now, fit your bread pan on top of the barrel, and cut notches in the rim for the handles. Perhaps it will need a couple of cleats on the inside of the top of the barrel to keep the pan from tipping. Light a medium-sized lamp and set it inside the barrel and your raiser is complete. By watching carefully and holding the hand to the bottom of pan to tell the worth of it (the pan), lowering the light or raising as required. A few times using will convince you of its usefulness. The quantity of oil burned is very small. Try my way of making and raising bread and report results.—Tilicum, Miami.

tie in a cloth and boil for two hours, leaving room to swell.

Lemon Pudding—Take 1½ lbs. of bread crumbs, ¼ lb. of finely chopped suet, the rind of two lemons grated, and the juice of three lemons, 2 eggs, well beaten, ¼ lb. of sugar; mix all together and boil one hour.

Guest Pudding—Mix ¾ lb. of currants or raisins, ¼ lb. of suet, 1 lb. of flour, 6 eggs, a little milk, a bit of lemon peel, a pinch of salt; steam six hours.—F.M.W.

The big fool lacks conscience, the little fool lacks brains.

There is no admission into the straight gate for those who are not willing to give up all that is crooked.

And my arms hang down low

Since they hold you no more;

Come again, come again,

I am empty and lone;

For my joy went out when

My bright song-bird had flown!

My heart's music lies dumb

For the kisses of yore;

My heart's hollow—come, come,

Fill it up, dear, once more!

Come, and play—come, and crow,

My own little pet lamb!

For I long for you so!

And so desolate am I!

But there while, as I kneel

By that little green heap,

Sweetest dreams o'er me steal,

And a voice cheers my sleep,

Crying, "Rise, oh, arise,

For thy babe is not here;"

Where the happy land lies—
Where the cherubs make stir—
She is safe, she is glad,
In the blest "morning light ;
In the shining robe clad
That keeps spotlessly white ;
On the green hillock's brow,
'Mid the blossoms so gay
Hear her now ! hear her now—
She is laughing in play !"

Then I saw crowds of flowers,
And the sweetest of fruits,
And that baby of ours
Near the harp and the lutes,
'Mid the spiced sandalwood,
With the Lamb and the Dove,
There my little one stood,
Joining anthems of love !

And the angels anear
Whispered, "Darling, you're free—
Do whatever gives cheer,
And aye right it will be !"
When I heard the glad stir
Of the wings through the spheres !
Can I wish her back—here,
Where are sighing and tears ?

—Mrs. Howard Watson.

Cranford.

(Continued from Last Issue.)

CHAPTER VI.

Poor Peter's career lay before him rather pleasantly mapped out by kind friends, but Bonus Bernardus non videt omnia, in this map, too. He was to win honors at Shrewsbury School, and carry them thick to Cambridge, and after that, a living awaited him, the gift of his godfather, Sir Peter Arley. Poor Peter ! his lot in life was very different to what his friends had hoped and planned. Miss Matty told me all about it, and I think it was a relief to her when she had done so.

He was the darling of his mother, who seemed to dote on all her children, though she was, perhaps, a little afraid of Deborah's superior acquirements. Deborah was the favorite of her father, and when Peter disappointed him she became his pride. The sole honor Peter brought away from Shrewsbury was the reputation of being the best good fellow that ever was, and of being the captain of the school in the art of practical joking. His father was disappointed, but set about remedying the matter in a manly way. He could not afford to send Peter to read with any tutor ; but he could read with him himself ; and Miss Matty told me much of the awful preparations in the way of dictionaries and lexicons that were made in her father's study the morning Peter began.

"My poor mother !" said she. "I remember how she used to stand in the hall, just near enough to the study-door, to catch the tone of my father's voice. I could tell in a moment if all was going right, by her face. And it did go right for a long time."

"What went wrong at last ?" said I. "That tiresome Latin, I daresay."

"No ! It was not the Latin. Peter was in high favor with my father, for he worked up well for him. But he seemed to think that the Cranford people might be joked about, and made fun of, and they did not like it ; nobody does. He was always hoaxing them ; 'hoaxing' is not a pretty word, my dear, and I hope you won't tell your father I used it, for I should not like him to think that I was not choice in my language, after living with such a woman as Deborah. And be sure you never use it of yourself. I don't know how it slipped out of my mouth, except it was that I was thinking of poor Peter, and it was always his expression. But he was a very gentlemanly boy in many things. He was like dear Captain Brown in always being ready to help any old person or a child. Still, he did like joking and making fun ; and he seemed to think the old ladies in

Cranford would believe anything. There were many old ladies living here then ; we are principally ladies now, I know, but we are not so old as the ladies used to be when I was a girl. I could laugh to think of some of Peter's jokes. No, my dear, I won't tell you of them, because they might not shock you as they ought to do, and they were very shocking. He even took in my father once, by dressing himself up as a lady that was passing through the town and wished to see the Rector of Cranford, 'who had published that admirable Assize Sermon.' Peter said he was awfully frightened himself when he saw how my father took it all in, and even offered to copy out all his Napoleon Buonaparte sermons for her—him, I mean—no, her, for Peter was a lady then. He told me he was more terrified than he ever was before, all the time my father was speaking. He did not think my father would have believed him ; and yet if he had not, it would have been a sad thing for Peter. As it was, he was none so glad of it, for my father kept him hard at work copying out all those twelve Buonaparte sermons for the lady—that was for Peter himself, you know. He was the lady. And once when he wanted to go fishing, Peter said, 'Confound the woman !'—very bad language, my dear, but Peter was not always so guarded as he should have been ; my father was so angry with him, it nearly frightened me out of my wits : and yet I could hardly keep from laughing at the little courtesies Peter kept making, quite slyly, whenever father spoke of the lady's excellent taste and sound discrimination."

"Did Miss Jenkyns know of these tricks ?" said I.

"Oh, no ! Deborah would have been so much shocked. No, no one knew but me. I wish I had always known of Peter's plans ; but sometimes he did not tell me. He used to say the old ladies in the town wanted something to talk about ; but I don't think they did. They had the St. James's Chronicle three times a week, just as we have now, and we have plenty to say ; and I remember the clacking noise there always was when some of the ladies got together. But, probably, schoolboys talk more than ladies. At last there was a terrible sad thing happened." Miss Matty got up, went to the door, and opened it ; no one was there. She rang the bell for Martha, and when Martha came, her mistress told her to go for eggs to a farm at the other end of the town.

"I will lock the door after you, Martha. You are not afraid to go, are you ?"

"No, ma'am, not at all ; Jem Hearn will be only too proud to go with me."

Miss Matty drew herself up, and as soon as we were alone, she wished that Martha had more maidenly reserve.

"We'll put out the candle, my dear. We can talk just as well by firelight, you know. There ! Well, you see, Deborah had gone from home for a fortnight or so ; it was a very still, quiet day, I remember, overhead ; and the lilacs were all in flower, so I suppose it was spring. My father had gone out to see some sick people in the parish ; I recollect seeing him leave the house with his wig and shovel-hat and cane. What possessed our poor Peter I don't know ; he had the sweetest temper, and yet he always seemed to like to plague Deborah. She never laughed at his jokes, and thought him ungentle, and not careful enough about improving his mind ; and that vexed him."

"Well ! he went to her room, it seems, and dressed himself in her old gown, and shawl, and bonnet ; just the things she used to wear in Cranford, and was known by everywhere ; and he made the pillow into a little—you are sure you locked the door, my dear, for I should not like anyone to hear—into—into—a little baby, with white long clothes. It was only, as he told me afterwards, to make something to talk about in the town ; he never thought of it as affecting Deborah, and he went and walked up and down in the Filbert walk—just half-hidden by the rails, and half seen ; and he cuddled his pillow, just like a baby, and talked to it all the nonsense people do. Oh dear ! and my father came stepping stately up the street, as he al-

ways did ; and what should he see but a little black crowd of people—I daresay as many as twenty—all peeping through his garden rails. So he thought, at first, they were only looking at a new rhododendron that was in full bloom, and that he was very proud of ; and he walked slower, that he might have more time to admire. And he wondered if he could make out a sermon from the occasion, and thought, perhaps, there was some relation between the rhododendron and the lilies of the field. My poor father ! When he came nearer, he began to wonder that they did not see him ; but their heads were all so close together peeping and peeping ! My father was amongst them, meaning, he said, to ask them to walk into the garden with him, and admire the beautiful vegetable production, when—oh, my dear ! I tremble to think of it—he looked through the rails himself, and saw—I don't know what he thought he saw, but old Clare told me his face went quite gray-white with anger, and his eyes blazed out under his frowning black brows ; and he spoke out—oh, so terribly !—and bade them all stop where they were—not one of them to go, not one to stir a step ; and, swift as light, he was in at the garden gate, and down the Filbert walk, and seized hold of poor Peter, and tore his clothes off his back—bonnet, shawl, gown, and all—and threw the pillow among the people over the railings ; and then he was very, very angry indeed, and before all the people he lifted up his cane and flogged Peter !

"My dear, that boy's trick, on that sunny day, when all seemed going straight and well, broke my mother's heart, and changed my father for life. It did, indeed. Old Clare said, Peter looked as white as my father ; and stood as still as a statue to be flogged, and my father struck hard ! When my father stopped to take breath, Peter said, 'Have you done enough, sir ?' quite hoarsely, and still standing quite quiet. I don't know what my father said—or if he said anything. But old Clare said, Peter turned to where the people outside the railing were, and made them a low bow, as grand, and as grave as any gentleman ; and then walked slowly into the house. I was in the store-room helping my mother to make cowslip wine. I cannot abide the wine now, nor the scent of the flowers ; they turn me sick and faint, as they did that day, when Peter came in, looking as haughty as any man—indeed, looking like a man, not like a boy. 'Mother !' he said, 'I am come to say, God bless you forever.' I saw his lips quiver as he spoke ; and I think he durst not say anything more loving, for the purpose that was in his heart. She looked at him rather frightened, and wondering, and asked him what was to do. He did not smile or speak, but put his arms around her and kissed her as if he did not know how to leave off ; and before she could speak again he was gone. We talked it over, and could not understand it, and she bade me go and seek my father, and ask what it was all about. I found him walking up and down, looking very highly displeased."

"Tell your mother I have flogged Peter, and that he richly deserved it."

"I durst not ask any more questions. When I told my mother, she sat down, quite faint, for a moment. I remember, a few days after, I saw the poor, withered cowslip flowers thrown out of the leaf heap, to decay and die there. There was no making of cowslip wine that year at the rectory—nor, indeed, ever after."

"Presently my mother went to my father. I know I thought of Queen Esther and King Ahasuerus ; for my mother was very pretty and delicate-looking, and my father looked as terrible as King Ahasuerus. Some time after they came out together ; and then my mother told me what had happened, and that she was going up to Peter's room at my father's desire—though she was not to tell Peter this—to talk the matter over with him. But no Peter was there. We looked over the house ; no Peter was there ! Even my father, who had not liked to join in the search at first, helped us before long. The rectory was a very old house—steps up into a room, steps down into a room, all through. At first, my mother went calling low

as if to reassure the poor boy, 'Peter! dear! I only me;' but, by and by, as servants he back from the errands my had set them, in different directions, to where Peter was—as we found he was not in the garden nor the hayloft, nor anywhere else—my other's cry grew louder and louder, 'Peter! Peter! my darling! where are you?' when she felt and understood that long, it meant some sad kind of 'good-bye.' The groan went on—my mother never ceasing, but weeping again and again in every breath that had been looked into twenty years ago, nay, that she had looked into years ago again herself. My father sat in his hands, not speaking except when messengers came in, bringing no news; and he lifted up his face, so strong and sad, and told them to go again in some direction. My mother kept passing from room to room, in and out of the house, moving restlessly but never ceasing. Neither she nor father durst leave the house, which was the place for all the messengers. At last, when it was nearly dark, my father rose up. He took the arm of my mother's arm as she came in, and he sad pace through one door, and slowly towards another. She started at the sound of his hand, for she had forgotten all in the world but Peter.

'My dear!' said he, 'I did not think all this would happen.' He looked into her face for her poor face, all wild and white; for she nor my father had dared to acknowledge—much less act upon—the terror that their hearts, lest Peter should have away with himself. My father saw no more look in his wife's hot, dreary eyes, and he missed the sympathy that she had always been ready to give him—strong man as he was—and at the dumb despair in her face his heart began to flow. But when she saw this, a quite new sorrow came over her countenance, and she said, 'Dearest John! don't cry; come with me, and we'll find him,' almost as cheerfully as she knew where he was. And she took my father's great hand in her little soft one and led him along, the tears dropping as he walked on the same unceasing, weary walk, from room to room, through house and garden.

Oh, how I wished for Deborah! I had no more for crying, for now all seemed to depend on me. I wrote for Deborah to come home. I wrote a message privately to that same Mr. Holbrook's house—poor Mr. Holbrook!—you know I mean. I don't mean I sent a message to him, but I sent one that I could trust to him if Peter was at his house. For at one time Mr. Holbrook was an occasional visitor at my father's—you know he was Miss Pole's cousin—and he had been very kind to Peter, and taught him how to fish—he was very kind to everybody, and I thought Peter might have been off there. But Mr. Holbrook was from home, and Peter had never been seen. It was not now; but the doors were all wide open, and my father and mother walked on and on; and it was more than an hour since he had joined me, and I don't believe they had ever spoken at that time. I was getting the parlor fire kindled, and one of the servants was preparing for me, for I wanted them to have something to eat and drink and warm them, when Old Clare came to speak to me.

'I have borrowed the nets from the weir, Miss Matty. Shall we drag the ponds to-night, or wait for the morning?'

'I remember staring in his face to gather his meaning; and when I did, I laughed out loud. The horror of that new thought—our bright, darling Peter, cold, and stark, and dead! I remember the ring of my own laugh now.'

'The next day Deborah was at home before I was myself again. She would not have been so weak as to give way as I had done; but my screams (my horrible laughter had ended in crying) had roused my sweet, dear mother, whose poor wandering wits were called back and collected as soon as a child needed her care. She and Deborah sat by my bedside; I knew by the looks of each that there had been no news of Peter—no awful, ghastly news, which was

what I most dreaded in my dull state between sleeping and waking.

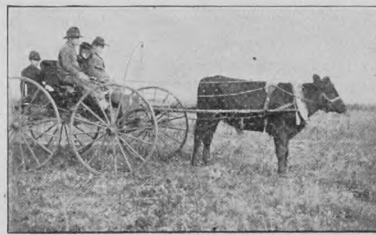
'The same result of all the searching had brought something of the same relief to my mother, to whom, I am sure, the thought that Peter might even then be hanging dead in some of the familiar home places had caused that never-ending walk of yesterday. Her soft eyes never were the same again after that; they had always a restless, craving look, as if seeking for what they could not find. Oh! it was an awful time; coming down like a thunderbolt on the still sunny dew when the lilacs were all in bloom.'

'Where was Peter?' said I.

'He had made his way to Liverpool; and there was war then; and some of the king's ships lay off the mouth of the Mersey; and they were only too glad to have a fine likely boy such as him (five foot nine he was) come to offer himself. The captain wrote to my father, and Peter wrote to my mother. Stay! those letters will be somewhere here.'

We lighted the candle, and found the captain's letter, and Peter's too. And we also found a little simple begging letter from Mrs. Jenkyns to Peter, addressed to him at the house of an old schoolfellow, whither she fancied he might have gone. They had returned it unopened; and unopened it had remained ever since, having been inadvertently put by among the other letters of that time. This is it—

'My Dearest Peter—You did not think we should be so sorry as we are, I know, or you would never have gone away. You are too good. Your father sits and sighs till his heart aches to hear him. He cannot hold up his head for grief; yet he only did what he thought was right. Perhaps he has been too severe, and per-



A Prairie Scene.—Going to School.

haps I have not been kind enough; but God knows how we love you, my dear only boy. Don't look so sorry you are gone. Come back, and make us happy, we who love you so much. I know you will come back.'

But Peter did not come back. That spring day was the last time he ever saw his mother's face. The writer of the letter—the last—the only person who had ever seen what was written in it, was dead long ago; and I, a stranger, not born at the time when this occurrence took place, was the one to open it.

The captain's letter summoned the father and mother to Liverpool instantly, if they wished to see their boy; and, by some of the wild chances of life, the captain's letter had been detained somewhere, somehow.

Miss Matty went on, 'And it was racetime, and all the post-horses at Cranford were gone to the races; but my father and mother set off in our own gig—and oh! my dear, they were too late—the ship was gone! And now read Peter's letter to my mother!'

It was full of love, and sorrow, and pride in his new profession, and a sore sense of his disgrace in the eyes of the people at Cranford; but ending with a passionate entreaty that she would come and see him before he left the Mersey: 'Mother! we may go into battle. I hope we shall, and lick those French; but I must see you again before that time.'

'And she was too late,' said Miss Matty, 'too late!'

We sat in silence, pondering on the full meaning of those sad, sad words. At length I asked Miss Matty to tell me how her mother bore it.

'Oh!' she said, 'she was patience itself. She had never been strong, and this weakened her terribly. My father used to sit looking at her; far more sad than she was. He seemed as if he could look at nothing else when she was by; and he was so humble—so very gentle now. He would, perhaps, speak in his old way—laying down the law, as it were—and then, in a minute or two, he would come round and put his hand on our shoulders, and ask us in a low voice if he had said anything to hurt us. I did not wonder at his speaking so to Deborah, for she was so clever; but I could not bear to hear him talking so to me.'

'But, you see, he saw what we did not—that it was killing my mother. Yes! killing her (put out the candle, my dear; I can talk better in the dark), for she was but a frail woman, and ill fitted to stand the fright and shock she had gone through; and she would smile at him and comfort him, not in words, but in her looks and tones, which were always cheerful when he was there. And she would speak of how she thought Peter stood a good chance of being admiral very soon—he was so brave and clever; and how she thought of seeing him in his navy uniform, and what sort of hats admirals wore; and how much more fit he was to be a sailor than a clergyman; and all in that way, just to make my father think she was quite glad of what came of that unlucky morning's work, and the flogging which was always in his mind, as we all knew. But oh, my dear! the bitter, bitter crying she had when she was alone; and at last, as she grew weaker, she could not keep her tears in when Deborah or me was by, and would give us message after message for Peter (his ship had gone to the Mediterranean, or somewhere down there, and then he was ordered off to India, and there was no overland route then); but she still said that no one knew where their death lay in wait, and that we were not to think hers was near. We did not think it, but we knew it, as we saw her fading away.'

'Well, my dear, it's very foolish of me, I know, when in all likelihood I am so near seeing her again.'

'And only think, love! the very day after her death—for she did not live quite a twelve-month after Peter went away—the very day after—came a parcel for her from India—from her poor boy. It was a large, soft, white India shawl, with just a little narrow border all round; just what my mother would have liked.'

'We thought it might rouse my father, for he sat with her hand in his all night long; so Deborah took it into him, and Peter's letter to her, and all. At first, he took no notice; and we tried to make a kind of light careless talk about the shawl, opening and admiring it. Then, suddenly, he got up, and spoke: 'She shall be buried in it,' he said. 'Peter shall have that comfort; and she would have liked it.'

'Well, perhaps it was not unreasonable, but what could we say or do? One gives people in grief their own way. He took it up and felt it; 'It is just such a shawl as she wished for when she was married, and her mother did not give it her. I did not know of it till after, or she should have had it—she should; but she shall have it now.'

'My mother looked so lovely in her death! She was always pretty, and now she looked fair, and waxen, and young—younger than Deborah, as she stood trembling and shivering by her. We decked her in the long soft folds; she lay smiling, as if pleased; and people came—all Cranford came—to beg to see her, for they had loved her dearly, as well they might; and the countrywomen brought posies; old Clare's wife brought some white violets, and begged they might lie on her breast.'

'Deborah said to me, the day of my mother's funeral, that if she had a hundred offers she never would marry and leave my father. It was not very likely she would have so many—I don't know that she had one; but it was not less to her credit to say so. She was such a daughter to my father as I think there never was before or since. His eyes failed him, and she read book after book, and wrote, and cop-

ied, and was always at his service in any parish business. She could do many more things than my poor mother could; she even once wrote a letter to the bishop for my father. But he missed my mother sorely; the whole parish noticed it. Not that he was less active; I think he was more so, and more patient in helping everyone. I did all I could to set Deborah at liberty to be with him; for I knew I was good for little, and that my best work in the world was to do odd jobs quietly, and see others at liberty. But my father was a changed man."

"Did Mr. Peter ever come home?"

"Yes, once. He came home a lieutenant; he did not get to be an admiral. And he and my father were such friends! My father took him into every house in the parish, he was so proud of him. He never walked out without Peter's arm to lean upon. Deborah used to smile (I don't think we ever laughed again after my mother's death), and say she was quite put in a corner. Not but what my father always wanted her when there was letter-writing or reading to be done, or anything to be settled."

"And then?" said I, after a pause.

"Then Peter went to sea again; and by and by, my father died, blessing us both, and thanking Deborah for all she had been to him; and, of course, our circumstances were changed; and, instead of living at the rectory, and keeping three maids and a man, we had to come to this small house, and be content with a servant-of-all-work; but, as Deborah used to say, we have always lived genteelly, even if circumstances have compelled us to simplicity. Poor Deborah!"

"And Mr. Peter?" asked I.

"Oh, there was some great war in India—I forget what they call it—and we have never heard of Peter since. I believe he is dead myself; and it sometimes fidgets me that we have never put on mourning for him. And then again, when I sit by myself, and all the house is still, I think I hear his step coming up the street, and my heart begins to flutter and beat; but the sound always goes past—and Peter never comes."

"That's Martha back? No! I'll go, my dear; I can always find my way in the dark, you know. And a blow of fresh air at the door will do my head good, and it's rather got a trick of aching."

She pattered off. I had lighted the candle, to give the room a cheerful appearance against her return.

"Was it Martha?" asked I.

"Yes. And I am rather uncomfortable, for I heard such a strange noise just as I was opening the door."

"Where?" I asked, for her eyes were round with affright.

"In the street—just outside—it sounded like —"

"Talking?" I put in, as she hesitated a little.

"No! kissing—"

CHAPTER VII.

One morning, as Miss Matty and I sat at our work—it was before twelve o'clock, and Miss Matty had not changed the cap with yellow ribbons that had been Miss Jenkyns's best, and which Miss Matty was now wearing out in private, putting on the one made in imitation of Mrs. Jamieson's at all times when she was expected to be seen—Martha came up, and asked if Miss Betty Barker might speak to her mistress. Miss Matty assented, and quickly disappeared to change the yellow ribbons, while Miss Barker came upstairs; but, as she had forgotten her spectacles, and was rather flurried by the unusual time of the visit, I was not surprised to see her return with one cap on the top of the other. She was quite unconscious of it herself, and looked at us with bland satisfaction. Nor do I think Miss Barker perceived it; for, putting aside the little circumstance that she was not so young as she had been, she was very much absorbed in her errand, which she delivered herself of with an oppressive modesty that found vent in endless apologies.

Miss Betty Barker was the daughter of the old clerk at Cranford who had officiated in Mr. Jenkyns's time. She and her sister had had pretty good situations as ladies' maids, and had saved money enough to set up a milliner's shop, which had been patronized by the ladies in the neighborhood. Lady Arley, for instance, would occasionally give Miss Barkers the pattern of an old cap of hers, which they immediately copied and circulated among the elite of Cranford. I say the elite, for Miss Barkers had caught the trick of the place and piqued themselves upon their "aristocratic connection." They would not sell their caps and ribbons to any one without a pedigree. Many a farmer's wife or daughter turned away huffed from Miss Barkers' select millinery. And went rather to the universal shop, where the profits of brown soap and moist sugar enabled the proprietor to go straight to (Paris, he said, until he found his customers too patriotic and John Bullish to wear what the Mounseers wore) London, where, as he often told his customers, Queen Adelaide had appeared, only the very week before, in a cap exactly like the one he showed them, trimmed with yellow and blue ribbons, and had been complimented by King William on the becoming nature of her head-dress.

Miss Barkers, who confined themselves to truth, and did not approve of miscellaneous customers, thrived notwithstanding. They were self-denying, good people. Many a time have I seen the eldest of them (she that had been maid to Mrs. Jamieson) carrying out some delicate mess to a poor person. They only aped their betters in having "nothing to do" with the class immediately below theirs. And when Miss Barker died, their profits and income were found to be such that Miss Betty was justified in shutting up shop and retiring from business. She also (as I think I have before said) set up her cow; a mark of respectability in Cranford almost as decided as setting up a gig is among some people. She dressed finer than any lady in Cranford; and we did not wonder at it; for it was understood that she was wearing out all the bonnets and caps and outrageous ribbons which had once formed her stock-in-trade. It was five or six years since she had given up shop, so in any other place than Cranford her dress might have been considered passee.

And now Miss Betty Barker had called to invite Miss Matty to tea at her house on the following Tuesday. She gave me also an impromptu invitation, as I happened to be a visitor—though I could see she had a little fear lest, since my father had gone to live in Drumble, he might have engaged in that "horrid cotton trade," and so dragged his family down out of "aristocratic society." She prefaced this invitation with so many apologies that she quite excited my curiosity. "Her presumption" was to be excused. What had she been doing? She seemed so overpowered by it, I could only think that she had been writing to Queen Adelaide to ask for a receipt for washing lace; but the act which she so characterized was only an invitation she had carried to her sister's former mistress, Mrs. Jamieson. "Her former occupation considered, could Miss Matty excuse the liberty?" Ah! thought I, she has found out that double cap, and is going to rectify Miss Matty's head-dress. No! it was simply to extend her invitation to Miss Matty and to me. Miss Matty bowed acceptance; and I wondered that, in the graceful action, she did not feel the unusual weight and extraordinary height of her head-dress. But I do not think she did, for she recovered her balance, and went on talking to Miss Betty in a kind condescending manner, very different from the fidgety way she would have had if she had suspected how singular her appearance was.

"Mrs. Jamieson is coming, I think you said?" asked Miss Matty.

"Yes. Mrs. Jamieson most kindly and condescendingly said she would be happy to come. One little stipulation she made, that she should bring Carlo. I told her that if I had a weakness, it was for dogs."

"And Miss Pole?" questioned Miss Matty, who was thinking of her pool at Preference, in which

Carlo would not be available as a partner. "I am going to ask Miss Pole. Of course could not think of asking her until I had asked you, madam—the rector's daughter, madam, believe me, I do not forget the situation father held under yours."

"And Mrs. Forrester, of course?"

"And Mrs. Forrester. I thought, in fact, going to her before I went to Miss Pole. Though her circumstances are changed, madam, she was born a Tyrrell, and we can never get her alliance to the Biggises, of Bigg Hall."

Miss Matty cared much more for the little circumstance of her being a very good card-player.

"Mrs. Fitz-Adam—I suppose—"

"No, madam. I must draw a line somewhere, Mrs. Jamieson would not, I think, to meet Mrs. Fitz-Adam. I have the greatest respect for Mrs. Fitz-Adam—but I cannot let her fit society for such ladies as Mrs. Jamieson and Miss Matilda Jenkyns."

Miss Betty Barker bowed low to Miss Matty and pursed up her mouth. She looked at me with sidelong dignity, as much as to say, though a retired milliner, she was no demure and understood the difference of ranks.

"May I beg you to come as near half-past six, to my little dwelling, as possible, Miss Matilda? Mrs. Jamieson dines at five, but has kindly promised not to delay her visit beyond that time—half-past six." And with a swimming curtesy Miss Betty Barker took her leave.

My prophetic soul foretold a visit that afternoon from Miss Pole, who usually came on Miss Matilda after any event—or, indeed, in sight of any event—to talk it over with her.

"Miss Betty told me it was to be a select few," said Miss Pole, as she and Miss Matty compared notes.

"Yes, so she said. Not even Mrs. Fitz-Adam."

Now Mrs. Fitz-Adam was the widowed daughter of the Cranford surgeon, whom I have mentioned before. Their parents were respectable farmers, content with their station. The names of these good people was Hoggins. Mr. Hoggins was the Cranford doctor now; we disliked his name and considered it coarse; but, as Miss Jenkyns said, if he changed it to Piggins would not be much better. We had hoped to discover a relationship between him and the Marchioness of Exeter whose name was Mr. Hoggins; but the man, careless of his own interests, utterly ignored and denied any such relationship, although as dear Miss Jenkyns said, he had a sister called Mary, and the same Christian names were apt to run in the families.

Soon after Miss Mary Hoggins married Mr. Fitz-Adam she disappeared from the neighborhood for many years. She did not move to any sphere in Cranford society sufficiently high to make any of us care to know what Mr. Fitz-Adam was. He died and was gathered to his fathers without our ever having thought of him at all. And then Mrs. Fitz-Adam reappeared in Cranford ("as bold as a lion," Miss Pole said), a well-to-do widow, dressed in real black silk, so soon after her husband's death that poor Miss Jenkyns was justified in the remark she made, that "bombazine would have shown a deeper sense of her loss."

(To be Continued.)

A touching story is told of the little girl Turton, who, after being taken from Moose Mountain to South Dakota and kept there by her Indian abductors for several years, could be brought to remember very little about her parents or her early home. But when she came in sight of an old grey pony on the Turton farm she recognized it at once, and exclaimed, "Why, there's old Pinto." This pony was a great favorite of the child before she was kid-napped, and her instant recognition of her pet removes the last vestige of doubt as to her identity.